IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

FOREST LABORATORIES, INC., ET AL., Plaintiffs, VS. COBALT LABORATORIES, INC., ET AL., Defendants. FOREST LABORATORIES, INC., ET AL., Plaintiffs, VS. BARR LABORATORIES, INC., ET AL., Defendants. FOREST LABORATORIES, INC., ET AL., Plaintiffs, VS. DR. REDDY'S LABORATORIES, INC., ET AL., Defendants. FOREST LABORATORIES, INC., ET AL., Plaintiffs, VS. ORGENUS PHARMA, INC., Defendant. FOREST LABORATORIES, INC., ET AL., Plaintiffs, VS. APOTEX, INC., ET AL., Defendants.

C.A. No. 08-21-GMS-LPS (Consolidated)

REDACTED – **PUBLIC VERSION**

PLAINTIFFS' ANSWERING BRIEF IN OPPOSITION TO DEFENDANT ORGENUS' MOTION TO DISMISS FOR LACK OF PERSONAL JURISDICTION

Of Counsel:

John Desmarais Gerald J. Flattmann, Jr. Melanie R. Rupert KIRKLAND & ELLIS LLP Citigroup Center 153 East 53rd Street New York, NY 10022 (212) 446-4800

F. Dominic Cerrito Daniel L. Malone Eric C. Stops JONES DAY 222 East 41st Street New York, NY 10017 (212) 326-3939

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MORRIS, NICHOLS, ARSHT & TUNNELL LLP Jack B. Blumenfeld (#1014) Maryellen Noreika (#3208) 1201 North Market Street P.O. Box 1347 Wilmington, DE 19899-1347 (302) 658-9200 jblumenfeld@mnat.com mnoreika@mnat.com

Attorneys for Plaintiffs

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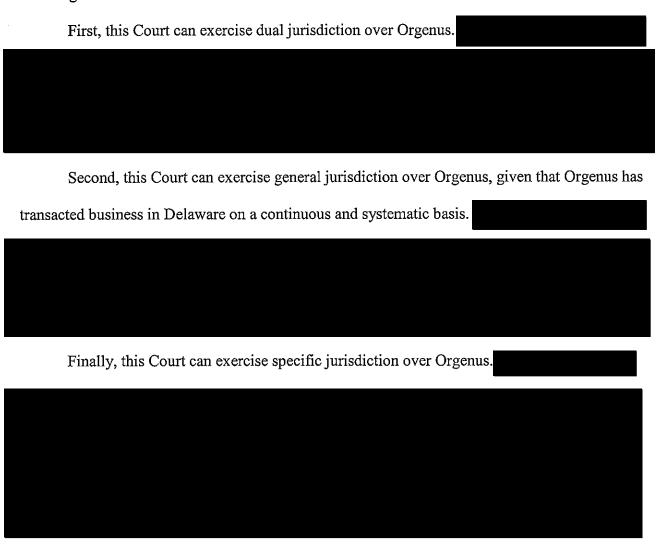
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I. NATURE AND STAGE OF PROCEEDINGS

On June 19, 2008, Orgenus moved to dismiss the Complaint against it for lack of personal jurisdiction. (D.I. 87.) Orgenus subsequently consented to limited jurisdictional discovery and entered into a stipulation extending Plaintiffs' time to respond to its motion until after a Rule 30(b)(6) deposition of Orgenus. (D.I. 105.) That deposition was taken on August 8, 2008. Plaintiffs submit this brief in response to Orgenus' motion to dismiss.

II. SUMMARY OF ARGUMENT

There are grounds for this Court to exercise any of three different kinds of jurisdiction over Organus.



Moreover, Orgenus' actions caused tortious injury to at

least one of the Plaintiffs in Delaware.

In addition, this Court can also exercise jurisdiction over Organus under the principles of alter ego and agency.

Given these numerous contacts, Orgenus should reasonably have anticipated being haled into Delaware court. Thus, the exercise of personal jurisdiction over Orgenus is consistent with the Due Process Clause, and Orgenus' motion to dismiss should be denied.¹

III. STATEMENT OF FACTS

Plaintiff Forest Laboratories, Inc. ("Forest Labs") is an innovative pharmaceutical company that identifies, develops, and delivers new pharmaceutical products, focusing on the therapeutic areas of the central nervous, cardiovascular and respiratory systems. Plaintiff Forest Laboratories Holdings, Ltd. ("Forest Holdings") is a wholly-owned subsidiary of Forest Labs. Plaintiffs Merz Pharma GmbH & Co. KGaA and Merz Pharmaceuticals GmbH (collectively "Merz") are international pharmaceutical companies engaged in the research and development of drugs for the treatment of psychiatric and neurological disorders.

Merz is the assignee of U.S. Patent No. 5,061,703 ("the '703 patent"), entitled "Adamantane Derivatives in the Prevention and Treatment of Cerebral Ischemia." The '703 patent relates generally to a method for the prevention and treatment of cerebral ischemia using an adamantane derivative, including the derivative memantine hydrochloride.

Forest Labs is the holder of New Drug

In the event that this Court ultimately declines to exercise jurisdiction over Organus, Plaintiffs respectfully request that the Court grant Plaintiffs' Contingent Cross-Motion to Transfer (filed concurrently herewith).

Application ("NDA") No. 21-487 for memantine hydrochloride tablets, which are commercially marketed in the United States under the brand name NAMENDA®.

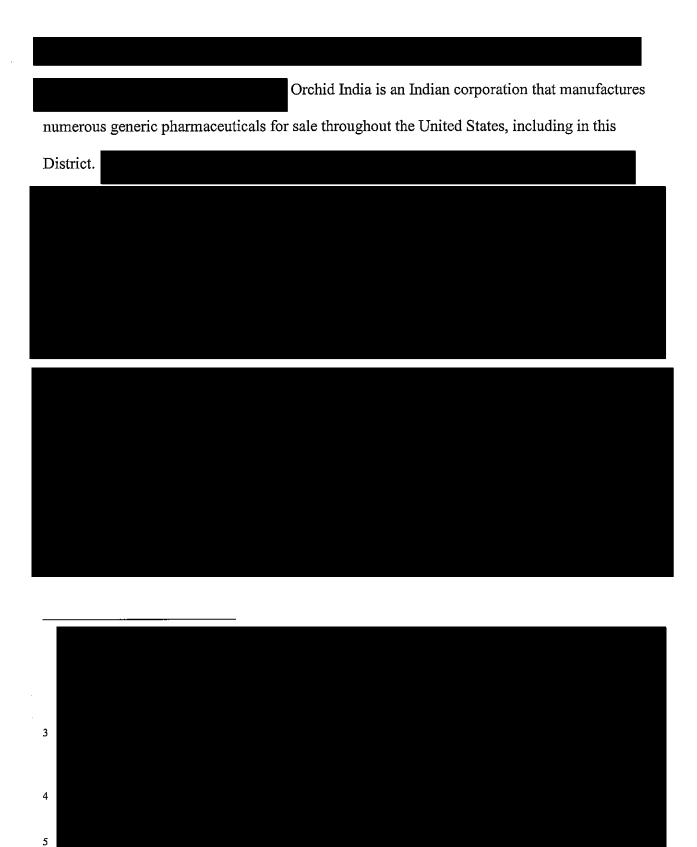
NAMENDA® is approved by the United States Food and Drug Administration ("FDA") for the treatment of moderate to severe dementia of the Alzheimer's type. The '703 patent is listed in the U.S. Food and Drug Administration's ("FDA") Approved Drug Products with Therapeutic Equivalence Evaluations ("the Orange Book") as covering NAMENDA®.

Sixteen companies have recently submitted Abbreviated New Drug Applications ("ANDAs") with accompanying Paragraph IV certifications to the FDA, pursuant to section 505(i) of the Federal Food, Drug and Cosmetic Act, seeking approval to commercially manufacture, use and sell generic versions of NAMENDA® prior to the expiration of the '703 patent. Under the provisions of the Hatch-Waxman Act, the submission of these ANDAs constitutes infringement of the '703 patent. See 35 U.S.C. § 271(e)(2)(A). To trigger a stay of approval of the ANDAs, Plaintiffs were required to file an action for infringement of the '703 patent within forty-five days of receiving notice of the respective Paragraph IV certifications. See 21 U.S.C. § 355(j)(5)(B)(iii). As a result, Plaintiffs filed a series of actions in this District against the Defendants (Civil Action Nos. 08-021, -022, -052, -291, and -336). All five actions have been consolidated. (D.I. 76, 83.)

Orgenus Pharma, Inc. ("Orgenus") is one of only two defendants that have contested personal jurisdiction in this District. The only other defendant contesting personal jurisdiction is Orchid Chemicals & Pharmaceuticals, Ltd. ("Orchid India").2

Orchid India filed its motion to dismiss on March 3, 2008. (D.I. 43.) (Continued...)

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IV. ARGUMENT

The law of the Federal Circuit governs personal jurisdiction issues in patent infringement cases. See Hildebrand v. Steck Mfg. Co., 279 F.3d 1351, 1354 (Fed. Cir. 2002). To decide whether personal jurisdiction exists over a non-resident defendant, "the court must determine whether jurisdiction lies under both the applicable state long-arm statute and the Due Process Clause of the Federal Constitution." See Viam Corp. v. Iowa Export-Import Trading Co., 84 F.3d 424, 427 (Fed. Cir. 1996).

When personal jurisdiction over a defendant is challenged by a motion to dismiss, the plaintiff bears the burden of showing the basis for jurisdiction. See Power Integrations, Inc. v. BCD Semiconductor Corp., 547 F. Supp. 2d 365, 369 (D. Del. 2008). To meet this burden, the plaintiff need only make a prima facie showing that personal jurisdiction is conferred by statute. Id. Delaware's long-arm statute has been construed "liberally so as to provide jurisdiction to the maximum extent possible. In fact, the only limit placed on [the statute] is that it remain within the constraints of the Due Process Clause." Id. at 370 (internal quotation marks omitted) (quoting Boone v. Oy Partek Ab, 724 A.2d 1150, 1157 (Del. Super. Ct. 1997)). Moreover, in evaluating a motion to dismiss for lack of personal jurisdiction, all factual inferences "must be viewed in the light most favorable to the plaintiff." Id.

A. This Court Should Exercise Dual Jurisdiction Over Organus

1. The Relevant Legal Standards

In several recent decisions, Delaware courts have applied the concept of dual jurisdiction as a means to exercise personal jurisdiction over a non-resident defendant. *See Power Integrations*, 547 F. Supp. 2d at 371. It is well-established that personal jurisdiction may exist when a non-resident corporation places its products in the marketplace and thereby creates sufficient jurisdictional contacts with any state in which its products may eventually be sold. *See*

In Delaware, "the touchstone of the dual jurisdiction analysis is intent and purpose to serve the Delaware market." Power Integrations, 547 F. Supp. 2d at 372. The Delaware market, however, does not need to be specifically targeted. Instead, a "non-resident firm's intent to serve the United States market is sufficient to establish an intent to serve the Delaware market, unless there is evidence that the firm intended to exclude from its marketing and distribution efforts some portion of the country that includes Delaware." Id. at 373 (emphasis added).

Organus Has A Clear Intent To Serve The United States Market, 2. Including Delaware, Thus Satisfying The Requirements For Dual Jurisdiction

Dual jurisdiction should be exercised over Orgenus in this case. Orgenus has shown an

indisputable intent to serve the United States market, including Delaware,

See Beverly Hills Fan, 21 F.3d at 1566; Jamison v. Olin Corp., No. 03-1036-

KI, 2004 WL 1098940, at *1, 4-5 (D. Or. May 14, 2004).

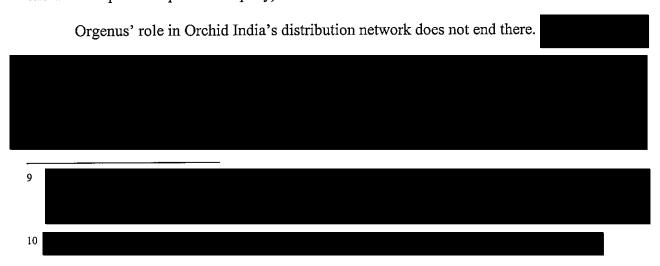


Orchid India has developed numerous products specifically for distribution and sale in the United States. See Orchid India Annual Report 2006-07, Exhibit 5, at OCP 00000622. This focus has resulted from Orchid India's recognition that the United States is "the world's largest and most profitable generics market" (Ex. 5 at OCP 00000585) and that the "US market ... offers distinctive incentives in terms of 180-day exclusivities related to the Paragraph IV [ANDAs and] first-to-file products" (Id. (emphasis added):

Orchid India's distribution channels in the United States have proven lucrative.



See Beverly Hills Fan, 21 F.3d at 1566 (finding personal jurisdiction over importer for placing products in the stream of commerce and knowing the likely destination of the products); Jamison, 2004 WL 1098940, at *1, 4-5 (relying on Beverly Hills Fan to find personal jurisdiction under the stream of commerce theory over subsidiary company that acted as the exclusive importer of parent company).





Organus plainly avails itself of the Delaware market by its actions, permitting the Court to exercise dual jurisdiction over Organus. The Court should do so here.

B. This Court Should Exercise General Jurisdiction Over Organus

1. The Relevant Legal Standards

Subsection (c)(4) of Delaware's long-arm statute confers general jurisdiction over a non-resident defendant. *Boone*, 724 A.2d at 1155. General jurisdiction arises when the defendant has continuous and systematic contacts with the forum state, even if those contacts are not related to the particular cause of action. *Helicopteros Nacionales de Colombia, S.A. v. Hall*, 466 U.S. 408, 414-15 (1984). There are continuous and systematic contacts when the defendant or its agent "regularly does or solicits business, engages in any other persistent course of conduct in the State or derives substantial revenue from services, or thing used or consumed in the State." 10 Del. C. § 3104(c)(4).

The fact that a company does not manufacture the product or has no employees, agents or real property in the forum is not dispositive of whether the court can exercise general

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jurisdiction. See Wright v. Am. Home Prods., 768 A.2d 518, 530-31 (Del. Super. 2000) (finding general and specific jurisdiction over French pharmaceutical companies, in part, because companies engaged in long-standing efforts to market the product throughout the United States); see also Eli Lilly & Co. v. Mayne Pharma (USA) Inc., 504 F. Supp. 2d 387, 393-95 (S.D. Ind. 2007) (holding an ANDA filer's revenues from other products, sold in forum through wholesalers, support the exercise of general jurisdiction over ANDA filer in infringement action under Hatch-Waxman Act).

Orgenus' Contacts With Delaware Should Be Considered Continuous 2. And Systematic For General Jurisdictional Purposes

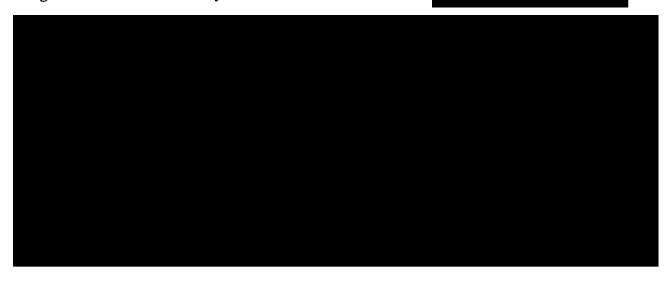
Organus' reliance on Merck¹³ in support of its position that there is no general jurisdiction over it in Delaware (D.I. 89 at 12-13) is misplaced. Merck is factually distinguishable from this case on a number of grounds. The defendant in Merck had a principal place of business in New York, where an identical patent infringement action was pending. Merck, 179 F. Supp. 2d at 370. In contrast, Organus has a principal place of business in New Jersey, and no other action for infringement of the '703 patent is presently pending against Organus there or in any other district court. In addition, the plaintiff in Merck conceded that there was no specific jurisdiction over the defendant. Id. at 371. Plaintiffs in this case have made no such concession, and contend that the Court may exercise specific jurisdiction over Organus on several bases (discussed *infra*).

In any event, the Federal Circuit and this Court have not applied the reasoning in Merck in recent decisions. See Commissariat a L'Energie Atomique v. Chi Mei Optoelectronics Corp., 395 F.3d 1315, 1317-22 (Fed. Cir. 2005) (vacating dismissal of patent action for lack of personal jurisdiction even though defendant had no operations, employees, or property in Delaware, was

¹³ Merck & Co., Inc. v. Barr Labs., Inc., 179 F. Supp. 2d 368 (D. Del. 2002).

not registered to do business in Delaware, and did not transact business directly in Delaware); LG.Phillips, 551 F. Supp. 2d at 337, 340 n.2 (explicitly declining to follow Merck and denying motion to dismiss patent action for lack of personal jurisdiction even though defendant had no employees in Delaware, was not registered to do business in Delaware, did not own or lease property in Delaware, and did not sell its products directly in Delaware); Power Integrations, 547 F. Supp. 2d at 367, 376-77 (declining to dismiss patent action for lack of personal jurisdiction even though defendant had no offices, employees, property, or bank accounts in Delaware, was not registered to do business in Delaware, and did not sell products directly in Delaware).14

But most importantly for general jurisdiction purposes, there is evidence here that Organus has continuous and systematic contacts with Delaware.



Organus would err if it relies on Applied Biosystems, Inc. v. Cruachem, Ltd., 772 F. Supp 1458 (D. Del. 1991) and Monsanto Co. v. Syngenta Seeds, Inc., 443 F. Supp. 2d 636 (D. Del. 2006) to argue there is no general jurisdiction.

¹⁵ See Orchid Pharmaceuticals, Inc., Delaware Certificate of Incorporation, Exhibit 13, at OPI 00000001.



The

Court should not hesitate to exercise jurisdiction over Orgenus now.

C. This Court Should Exercise Specific Jurisdiction Over Organus

1. The Relevant Legal Standards

A court may exercise specific jurisdiction over a defendant when the particular cause of action arises from defendant's activities within the forum state. See Helicopteros, 466 U.S. at 414. The types of activities that give rise to specific personal jurisdiction over defendants in



¹⁹ Orgenus may rely on *Intellimark, Inc. v. Rowe*, No. 05C-01-086-PLA, 2005 WL 2739500 (Del. Super. Ct. Oct. 24, 2005) to argue that there is no personal jurisdiction. In that case, the court declined to exercise personal jurisdiction solely by virtue of a Delaware choice of law provision. Id. at *2 (emphasis added).

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Delaware are set forth in Delaware's long-arm statute. Subsection (c)(1) allows a court to exercise personal jurisdiction over a non-resident who "[t]ransacts any business or performs any character of work or service in the State " 10 Del. C. § 3104(c)(1). Subsection (c)(3) authorizes personal jurisdiction over a non-resident who "[c]auses tortious injury in the State by an act or omission in this State " 10 Del. C. § 3104(c)(3). Under Delaware law, a single transaction or tortious injury is sufficient to permit the exercise of specific jurisdiction. LaNuova D & B, S.p.A v. Bowe Co., 513 A.2d 764, 768 (Del. 1986); see also TriStrata Tech., Inc. v. Emulgen Labs., Inc., 537 F. Supp. 2d 635, 640-41 (D. Del. 2008) (finding specific jurisdiction over manufacturer in patent infringement action, in part, because manufacturer contracted with third party to market its product through nationwide e-mail broadcast).

The Cause Of Action Against Orgenus Arises, In Part, From 2. Activities Related To ANDA No. 90-044 Which Occurred In Delaware

Organus' proposed memantine hydrochloride tablets result from activities that have a clear connection to Delaware.



Taken together, these facts are sufficient to support the

exercise of specific jurisdiction over Orgenus.

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3. Orgenus Has Caused Tortious Injury To Forest Labs In Delaware

There is also specific jurisdiction over Orgenus because Orgenus caused tortious injury to at least one Plaintiff in Delaware, thus satisfying the requirements of subsection (c)(3) of the Delaware long-arm statute. 20

The value of Forest Labs' stock, as well as its future business opportunities, may suffer as a result Orchid India's allegations. Therefore, the most realistic

situs of injury to Plaintiffs in the United States is Delaware, where Plaintiff Forest Labs is incorporated and where the economic injury to it would occur.²²

The question of whether the sending of a Paragraph IV notice, by itself, gives rise to specific jurisdiction over the ANDA filer in a plaintiffs' state of incorporation is an important but unresolved issue in ANDA litigation. (D.I. 100 at 19.) The absence of clear precedent has caused, and continues to cause, confusion, needless litigation, and waste of judicial resources, particularly in cases such as this one in which the patentee faces multiple ANDA defendants

Orgenus' reliance on Foster Wheeler Energy Corp. v. Metallgesellschaft AG, No. 91-214-SLR, 1993 WL 669447, at *5 (D. Del. Jan. 4, 1993) to support its argument that there is no specific jurisdiction (D.I. 89 at 9) is misplaced. The patent infringement action at issue in Foster Wheeler did not involve the unique challenges that ANDA litigations present, including the situation where a patentee faces multiple ANDA defendants with principal places of business in numerous jurisdictions.

²¹ See Orchid India Paragraph IV Notice, attached hereto as Exhibit 22.

²² To argue that Plaintiffs have suffered no harm in Delaware, Organus has suggested that Forest Labs, as a licensee, may not have standing to assert a claim under the '703 patent. (D.I. 89 at 10-11.) This suggestion is wrong. Forest Labs plainly has standing to sue here, since the assignee of the '703 patent (Merz) is also a named Plaintiff. See Propat Int'l v. Rpost, Inc., 473 F.3d 1187, 1193 (Fed Cir. 2007) (holding that exclusive licensee may sue for infringement by joining patent owner in the action against the accused infringer).

incorporated or headquartered in numerous different jurisdictions. (Id. at 20.) Requiring Plaintiffs to sue each Defendant in its home forum would result in enormous duplication of effort, waste of judicial resources, and possibly inconsistent results. On the other hand, requiring Defendants to litigate in Forest Labs' corporate forum comports with due process (discussed infra), because Defendants can easily foresee that sending a Paragraph IV notice to a Delaware corporation will result in litigation in Delaware. (Id. at 21.)

This Court Should Exercise Personal Jurisdiction Over Organus On The D. Basis Of Alter Ego And Agency

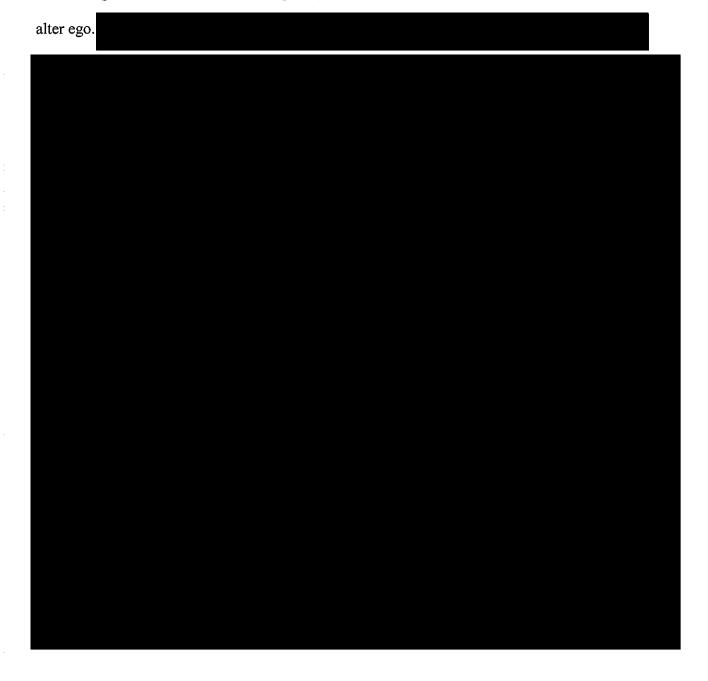
1. The Relevant Legal Standards

Delaware law allows the exercise of personal jurisdiction over Orgenus on either alter ego or agency grounds. See E.I. duPont de Nemours & Co. v. Rhodia Fiber & Resin Intermediates, S.A.S., 197 F.R.D. 112, 122 (D. Del. 2000). "A subsidiary corporation may be deemed the alter ego of its corporate parent where there is a lack of attention to corporate formalities, such as where assets of two entities are commingled, and their operations intertwined." In re Phillips Petroleum Sec. Litig., 738 F. Supp. 825, 838 (D. Del. 1990) (internal quotation marks omitted). An alter ego relationship may also exist when a corporate parent completely dominates and controls its subsidiary. *Id.* at 838-39.

Under the concept of agency, a court may attribute the actions of one corporation to another when one corporation acts on behalf of or at the direction of the other. Rhodia Fiber. 197 F.R.D. at 122. A finding of an agency relationship requires a close connection between the relationship of two corporations and the cause of action. See Wesley-Jessen Corp. v. Pilkington Visioncare, Inc., 863 F. Supp. 186, 189 (D. Del. 1993) (finding personal jurisdiction over foreign corporation in patent infringement suit under agency theory because foreign corporation and Delaware corporation had close corporate and business connections and acted as two arms of the same business group in common pursuit).

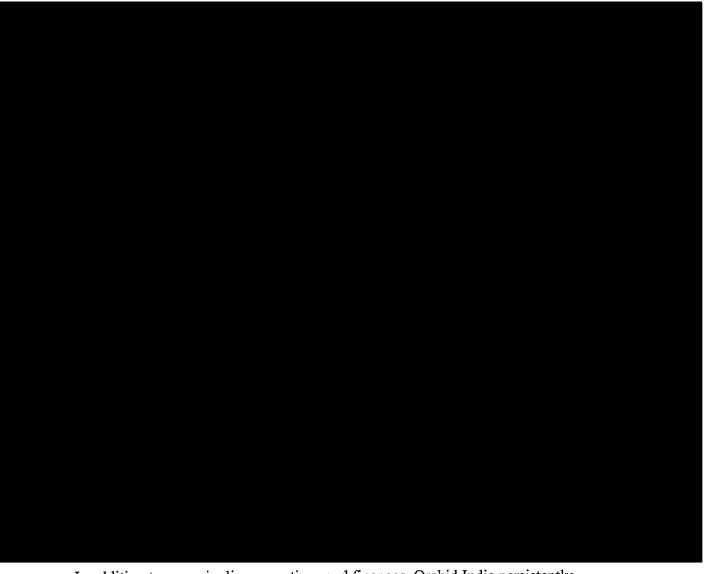
2. Orchid Pharma Is The Alter Ego Of Orgenus And Orchid India

Organus and Orchid India completely dominate Orchid Pharma – plainly making it their



²³ See Orchid Pharmaceuticals, Inc. 2006 Delaware Franchise Tax Report, Exhibit 23, at OPI_00000007.

²⁴ See Orchid Pharmaceuticals, Inc. 2004 Delaware Franchise Tax Report, Exhibit 24, at OPI 00000004; Orchid Pharmaceuticals, Inc. 2005 Delaware Franchise Tax Report, Exhibit 25, at OPI 00000006.



In addition to commingling operations and finances, Orchid India persistently misrepresents the nature of Orchid Pharma and Orgenus to the public and its shareholders. For example, in its 2006-07 Annual Report, Orchid India asserts that Orchid Pharma "market[s] bulk and formulations in the USA" and that Orgenus "markets formulations." (Ex. 5 at OCP 00000678.)

OCP_00000678.)

Taken together, these facts establish that there clearly is a "lack of attention to corporate formalities" between Orgenus, Orchid Pharma, and Orchid India. In re Phillips, 738 F. Supp. at 838. It is beyond dispute that the Court may exercise personal jurisdiction over Orchid Pharma. Likewise, there are several grounds for exercising personal jurisdiction over Orchid India (D.I. 100),

the Court may exercise personal jurisdiction over

Orgenus on alter ego grounds.

3. Orgenus And Orchid Pharma Act As Orchid India's Agents

This Court may also exercise jurisdiction over Organus on agency grounds, given that Organus and Orchid Pharma plainly act as Orchid India's agents in the United States and that there is personal jurisdiction over Orchid India in Delaware. (D.I. 100.) Several years ago, Orchid India decided to develop generic drug products for sale in the United States. (Ex. 5 at OCP 00000585-88) Before these products could be sold, however, the FDA had to approve an ANDA for each product that Orchid India would place in the United States market. See 21 U.S.C. § 355(j).

Orchid India, Orchid Pharma and Orgenus thus work together as three "arms of the same business group"

See Wesley-Jessen, 863 F. Supp. at 189. Thus, their specific roles are not relevant for purposes of agency. Id. (attributing distribution subsidiary's Delaware contacts to manufacturing subsidiary where the entities were "two arms of the same business group in their attempt to achieve the common goal of selling" the allegedly infringing products "in Delaware and other markets"). This Court may therefore exercise jurisdiction over Organus.

Exercising Personal Jurisdiction Over Orgenus Is Consistent With The Ε. **Due Process Clause**

To subject a non-resident defendant to personal jurisdiction, the Due Process Clause requires a finding of "minimum contacts" between the non-resident defendant and the forum state, "such that the maintenance of the suit does not offend traditional notions of fair play and substantial justice." Int'l Shoe Co. v. Washington, 326 U.S. 310, 316 (1945). The defendant's contacts must be of a nature that would cause it to reasonably foresee that it might be "haled into court" in the forum as a result of its conduct. See World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 297 (1980).

The contacts that are necessary to satisfy the Due Process Clause depend on the type of personal jurisdiction that is asserted over the non-resident defendant. For dual jurisdiction, due process is satisfied if the defendant has established minimum contacts with a given forum by placing products in the stream of commerce. See Beverly Hills Fan, 21 F.3d at 1568. For general jurisdiction, due process is satisfied by showing sufficient contacts between the forum and the foreign corporation. Helicopteros, 466 U.S. at 414. And for specific jurisdiction, the

requirements of due process are met by showing a relationship between the foreign defendant, the forum, and the litigation. Id.

Organus' contacts with Delaware satisfy the due process requirements of all three tests.

These distribution channels satisfy both the dual and general jurisdiction requirements of due process. Additionally, Orgenus' acts in Delaware related to its submission of ANDA No. 90-044 satisfy the due process requirements of specific jurisdiction.

and causing tortious

injury to at least one of the Plaintiffs in Delaware. Given these numerous contacts, Orgenus should reasonably have anticipated being haled into Delaware court. Thus, this Court's exercise of personal jurisdiction over Organus is consistent with the Due Process Clause.

V. CONCLUSION

For all of the foregoing reasons, Orgenus' motion to dismiss should be denied. In the alternative, if Orgenus' motion to dismiss is granted, Plaintiffs respectfully request that the Court grant Plaintiffs' Contingent Cross-Motion for Transfer (filed concurrently herewith).

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

Jack B. Blumenfeld (#1014) Maryellen Noreika (#3208)

1201 North Market Street

P.O. Box 1347

Wilmington, DE 19899-1347

(302) 658-9200

jblumenfeld@mnat.com

mnoreika@mnat.com

Attorneys for Plaintiffs

Of Counsel:

John Desmarais Gerald J. Flattmann, Jr. Melanie R. Rupert KIRKLAND & ELLIS LLP Citigroup Center 153 East 53rd Street New York, NY 10022 (212) 446-4800

F. Dominic Cerrito Daniel L. Malone Eric C. Stops JONES DAY 222 East 41st Street New York, NY 10017 (212) 326-3939

August 22, 2008

CERTIFICATE OF SERVICE

I hereby certify that on August 28, 2008 I electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing to:.

> Mary B. Matterer, Esquire MORRIS JAMES LLP

Frederick L. Cottrell, III, Esquire Anne Shea Gaza, Esquire Kelly E. Farnan, Esquire RICHARDS, LAYTON & FINGER, P.A.

Richard L. Horwitz, Esquire David E. Moore, Esquire POTTER ANDERSON & CORROON LLP

Richard D. Kirk, Esquire Ashley B. Stitzer, Esquire BAYARD, P.A.

Joseph Grey, Esquire Thomas G. Whalen, Jr., Esquire STEVENS & LEE, P.C.

John M. Seaman, Esquire Kevin G. Abrams, Esquire ABRAMS & LASTER LLP

I further certify that I caused to be served copies of the foregoing document on

August 21, 2008 upon the following in the manner indicated:

Mary B. Matterer, Esquire MORRIS JAMES LLP 500 Delaware Avenue Suite 1500 Wilmington, DE 19801 Counsel for Cobalt Laboratories Inc.

William A. Rakoczy, Esquire

Paul J. Molino, Esquire

Deanne M. Mazzochi, Esquire

Neil A. Benchell, Esquire

John Polivick, Esquire

RAKOCZY MOLINO MAZZOCHI SIWIK LLP

6 West Hubbard Street

Suite 500

Chicago, IL 60610

Counsel for Cobalt Laboratories Inc.

Kelly E. Farnan, Esquire

RICHARDS, LAYTON & FINGER, P.A.

One Rodney Square

920 North King Street

Wilmington, DE 19801

Counsel for Wockhardt USA Inc. and

Wockhardt Limited

Michael Dzwonczyk, Esquire

Mark Boland, Esquire

Chid Iyer, Esquire

SUGHRUE MION, PLLC

2100 Pennsylvania Avenue, N.W.

Washington, DC 23307

Counsel for Wockhardt USA Inc. and

Wockhardt Limited

Frederick L. Cottrell, III, Esquire

Anne Shea Gaza, Esquire

RICHARDS, LAYTON & FINGER, P.A.

One Rodney Square

920 North King Street

Wilmington, DE 19801

Counsel for Upsher-Smith Laboratories Inc.

David E. Marder, Esquire

Jake M. Holdreith, Esquire

Yixin H. Tang, Esquire

ROBINS, KAPLAN, MILLER & CIRESI L.L.P.

Prudential Tower, 25th Floor

800 Boylston Street

Boston, MA 02199

Counsel for Upsher-Smith Laboratories Inc.

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

Richard L. Horwitz, Esquire
David E. Moore, Esquire
POTTER ANDERSON & CORROON LLP
1313 North Market Street – 6th Floor
Wilmington, DE 19801
Counsel for Orchid Pharmaceuticals Inc.,
Orchid Chemicals & Pharmaceuticals Ltd
(d/b/a Orchid Healthcare), PLIVA d.d.,
PLIVA-Hrvatska d.o.o., Barr Laboratories,
Inc., Barr Pharmaceuticals, Inc., Interpharm
Holdings, Inc., Interpharm, Inc., Dr. Reddy's
Laboratories, Inc., Dr. Reddy's Laboratories
Limited, Orgenus Pharma Inc., Genpharm
Inc., Genpharm, L.P., Mylan Pharmaceuticals
Inc., Apotex Inc. and Apotex Corp

VIA ELECTRONIC MAIL

Kenneth G. Schuler, Esquire
LATHAM & WATKINS LLP
Sears Tower – Suite 5800
233 South Wacker Drive
Chicago, IL 60606
Counsel for Orchid Pharmaceuticals Inc.,
Orchid Chemicals & Pharmaceuticals Ltd
(d/b/a Orchid Healthcare) and Orgenus
Pharma Inc.

VIA ELECTRONIC MAIL

Terrence J. Connolly, Esquire
LATHAM & WATKINS LLP
885 Third Avenue – Suite 1000
New York, NY 10022-4834
Counsel for Orchid Pharmaceuticals Inc.,
Orchid Chemicals & Pharmaceuticals Ltd
(d/b/a Orchid Healthcare) and Orgenus
Pharma Inc.

VIA ELECTRONIC MAIL

Darryl H. Steensma, Esquire
LATHAM & WATKINS LLP
12636 High Bluff Drive – Suite 300
San Diego, CA 92130
Counsel for Orchid Pharmaceuticals Inc.,
Orchid Chemicals & Pharmaceuticals Ltd
(d/b/a Orchid Healthcare) and Orgenus
Pharma Inc.

Richard D. Kirk, Esquire

Ashley B. Stitzer, Esquire

BAYARD, P.A.

222 Delaware Avenue

Suite 900

Wilmington, DE 19801

Counsel for Lupin Pharmaceuticals USA, Inc.

and Lupin, Ltd.

Douglass C. Hochstetler, Esquire

D. Christopher Ohly, Esquire

Sailesh K. Patel, Esquire

SCHIFF HARDIN LLP

6600 Sears Tower

Chicago, IL 60606

Counsel for Lupin Pharmaceuticals USA, Inc.

and Lupin, Ltd.

Joseph Grey, Esquire

Thomas G. Whalen, Jr., Esquire

STEVENS & LEE, P.C.

1105 North Market Street

7th Floor

Wilmington, DE 19801

Counsel for Teva Pharmaceuticals USA, Inc.

Steven J. Lee, Esquire

Sheila Mortazavi, Esquire

KENYON & KENYON LLP

One Broadway

New York, NY 10004

Counsel for Teva Pharmaceuticals USA, Inc.

Thomas J. Meloro, Esquire

Eugene L. Chang, Esquire

Coleman B. Ragan, Esquire

WILLKIE FARR & GALLAGHER LLP

787 Seventh Avenue

New York, NY 10019-6099

Counsel for PLIVA d.d., PLIVA-Hrvatska

d.o.o., Barr Laboratories, Inc. and Barr

Pharmaceuticals, Inc.

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

Louis H. Weinstein, Esquire

Bruce D. Radin, Esquire

BUDD LARNER, P.C.

150 John F. Kennedy Parkway

Short Hills, NJ 07078-2703

Attorney for Interpharm Holdings, Inc.,

Interpharm, Inc., Dr. Reddy's Laboratories,

Inc. and Dr. Reddy's Laboratories Limited

John M. Seaman, Esquire

Kevin G. Abrams, Esquire

ABRAMS & LASTER LLP

20 Montchanin Road, Suite 200

Wilmington, DE 19807

Attorneys for Sun India Pharmaceutical

Industries Limited (a/k/a Sun Pharmaceutical

Industries Limited)

James F. Hurst, Esquire

Charles B. Klein, Esquire

Jay L. Levine, Esquire

WINSTON & STRAWN LLP

35 West Wacker Drive

Chicago, IL 60601

Attorneys for Sun India Pharmaceutical

Industries Limited (a/k/a Sun Pharmaceutical

Industries Limited)

Ron E. Shulman, Esquire

Terry Kearney, Esquire

Roger J. Chin, Esquire

WILSON SONSINI GOODRICH & ROSATI

650 Page Mill Road

Palo Alto, CA 94304

Attorneys Genpharm Inc., Genpharm, L.P. and

Mylan Pharmaceuticals Inc.

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

VIA ELECTRONIC MAIL

Robert B. Breisblatt, Esquire
Stephen P. Benson, Esquire
Craig M. Kuchii, Esquire
Brain J. Sodikoff, Esquire
Jeremy C. Daniel, Esquire
Joanna R. Stevason
KATTEN MUCHIN ROSENMAN LLP
525 W. Monroe Street
Chicago, IL 60661
Attorneys for Apotex Inc. and Apotex Corp

VIA ELECTRONIC MAIL

/s/ Maryellen Noreika Maryellen Noreika (#3208)

EXHIBIT 1

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EXHIBIT 2

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EXHIBIT 3

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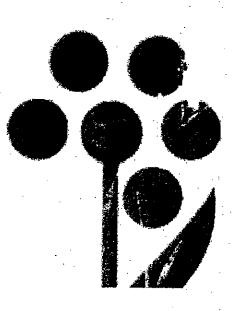
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EXHIBIT 5

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vision + vibrancy 🖨 value



OCP0000546

forward-looking statement

In this annual report, we have disclosed forward-looking information to help investors to comprehend our prospects and take informed investment decisions. This report is based on certain forward-looking statements that we periodically make to anticipate results based on the management's plans and assumptions.

We have tried wherever possible to identify such statements by using

words such as 'anticipates', 'estimates', 'expects', 'projects', 'intends', 'plans', 'believes', and words of similar substance in connection with any discussion of future performance.

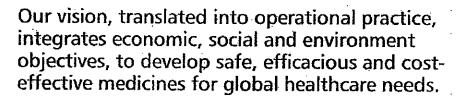
We cannot guarantee that these forward-looking statements will be realised, although we believe we have been prudent in assumptions. The achievement of results is subject to risks, uncertainties and even

inaccurate assumptions. Should known or unknown risks or uncertainties materialise, or should underlying assumptions prove inaccurate, actual results could vary materially from those anticipated, estimated or projected.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

contents

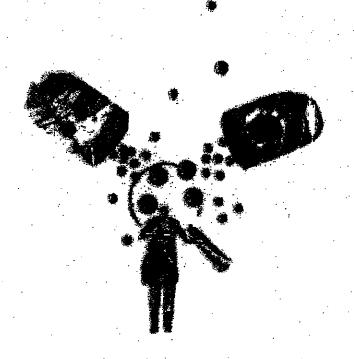
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Our vibrancy is derived from visionary leadership, strategic management, organizational competencies and people empowerment.

The science behind our vision and vibrancy in our organization create value.

Value that is attractive, sustainable and growing. Today and tomorrow.

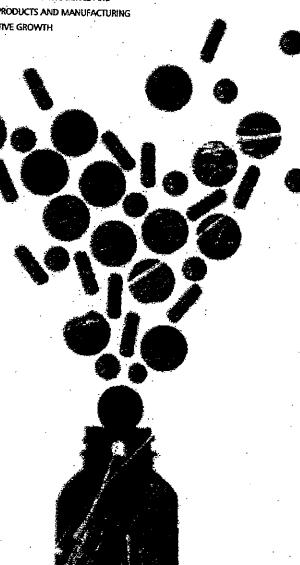




strategy+execution

=growth

N A COMPETITIVE PHARMACEUTICAL INDUSTRY, INNOVATIVE STRATEGY AND FOCUSED EXECUTION DIFFERENTIATE COMPANIES THAT REPORT SUSTAINABLE GROWTH FROM THOSE THAT DO NOT. AT ORCHID CHEMICALS & PHARMACEUTICALS LTD. (ORCHID), WE SUCCESSFULLY LEVERAGED OUR PENCHANT FOR SCIENCE AND TECHNOLOGY TO CREATE NICHE PRODUCTS AND MANUFACTURING PLATFORMS LEADING TO ATTRACTIVE GROWTH



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Orchid generated attractive growth through the following initiatives:

- + Entered product segments with challenging chemistry and high market exclusivity. The result is that we are now a leading global generic player with an end-to-end capability in the development and manufacture of a wide range of life-saving antibiorics.
- + Developed and manufactured products marked by complex processes requiring the deployment of sophisticated technologies and commensurately higher investments. This commitment translated into Orchid emerging as among the first to introduce to the generic markets some of the most complex cephalosporins, betalactams and carbapenems as active pharmaceutical ingredients (APIs) and finished dosage forms (FDFs)
- + Established world-class quality, regulatory and compliance systems to meet stringent international standards. Consequently, Orchid emerged as an acknowledged industry player with an impressive track record of product and plant regulatory approvals across diverse therapeutic segments
- + Invested consistently in manufacturing and research facilities in every single year since inception. Our asset outlay was

directed towards achieving globally benchmarked standards of technology and economies of scale, covering multiple therapeutic areas

- + Entered into business-enhancing marketing alliances with global majors for reaching our products deep inside regulated markets with a minimal time lag from development-through-plant-to market. The result is that we derived over 40% of our turnover from the regulated markets within just the first full year of positioning our finished dosage forms in the United States of America (US)
- + Extended proactively beyond generics with bold investments in the knowledge-driven field of drug discovery. Orchid is among the select Indian pharmaceutical companies to possess a globally competitive end-to-end connected drug discovery and drug development infrastructure
- + Nurtured intellectual capital covering different facets of pharmaceutical research. The result is that Orchid is now a top ranker with over 440 patent applications across various national and international patent offices, with more than 30% in the areas of drug discovery and other cutting-edge spaces
- + Pursued a multi-therapeutic and multilead drug discovery program. The result is

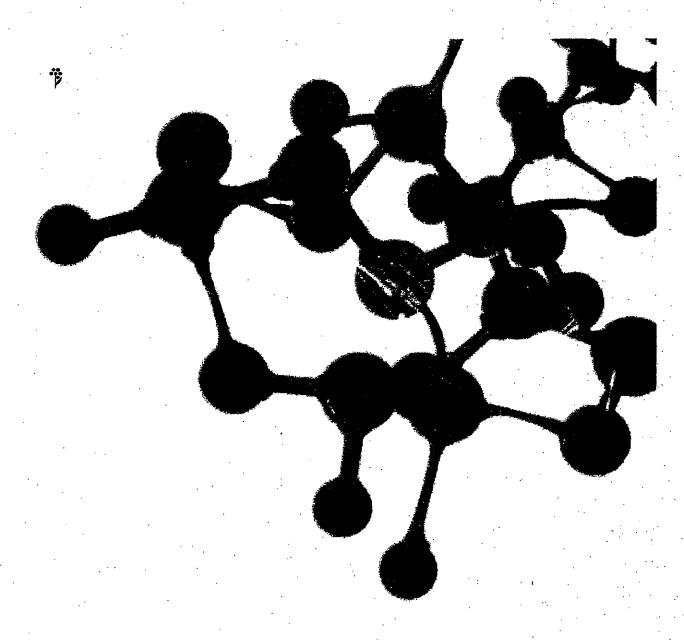
that within only a few years of entering the challenging space of drug discovery, Orchid now possesses a pipeline of several lead compounds covering six therapeutic areas invarious stages of development

The synergy of competitive strategy and emphatic execution has helped Orchid cross multiple milestones and post the following remarkable results:

- + Reached a topline of nearly Rs. 1,000 crore within only 13 years of going into production, the fastest growth track among Indian pharmaceutical companies
- Extended presence to more than 70 countries, establishing one of the widest marketing feotprints among Indian pharmaceutical companies
- + Achieved more than a two-fold increase in turnover and a seven-fold increase in profits over the last five years
- + Achieved an EBIDTA margin of 32% in 2006-07, among the highest in a competitive industry
- Doubled business from dosage forms and regulated markets within two years of rollout in the US and a strategic shift into generic dosage forms

Countering price declines through sophisticated technology

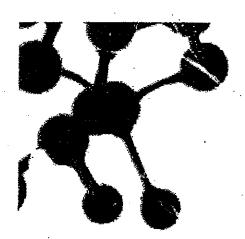
Sterile life-saving antibiotic injections figure among highly challenging products for most global manufacturers. These products require the competent use of crystallisation and lyophilisation technologies at active ingredient and dosage form levels in US FDA and UK MHRA-approved plants. Orchid's proactive investment in these facilities has translated into attractive realizations for its generics business even in a post-patent environment.



specialization + diversification

=sustainability

I N THE GENERICS SEGMENT WHERE A PRICE DECUNE FOLLOWING PATENT LOSS TENDS TO BE GENERALLY EXTENSIVE, THERE IS A PREMIUM ON THE ABILITY TO SELECT A PRODUCT THAT WILL SURVIVE EROSION IN REALIZATIONS AND MARKET SHARE. AT ORCHID, WE HAVE DEMONSTRATED BUST SUCH A DISTINCTIVE CAPABILITY



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- + Elected to be present in the cephalosporin niche of the antibiotic therapeutic segment. We invested with a distinctive commitment in this space during the first decade of our Operations (1994-2004); we established our position as the largest manufacturer-exporter of this product range in India and among the four leading global players in this segment
- + invested in challenging aseptic manufacture covering crystalline and lyophilisation technologies. Our bold and proactive investments in lyophilisation facilities helped us capitalize on the relative under-penetration in these segments, resulting in a dominant position in a product like Cefazolin
- + Identified niche opportunities in sterile crystalline and lyophilised products. We are now one of few manufacturers in certain offpatent products and the largest in the US generics market with a market share of around 70% in Cefoxitin

- + Selected to manufacture Piperacillin +
 Tazobactam injections through a patented
 process and deployment of challenging
 technologies like in situ vial lyophilisation,
 paving the way for Orchid to emerge as a
 niche global generic player in this segment
- + Progressively extended our antibiotic blue print to cover all life-saving categories of cephalosporins (across all generations), highend betalactams and futuristic carbapenems; we invested aggressively in the betalactam and carbapenem segments across API and dosage forms to carve out a global position
- + Even in the non-antibiotics or nonpenicillin, non-cephalosporin (NPNC) segment, we have chosen products, which offer major patent, chemistry or formulation challenges. As a result, within the first two years of our non-antibiotic foray, we filed ANDAs for three products with paragraph IV first-to-file status, among the 11 ANDAs filed in this space so far. We are also set to soon

launch the first NPNC product based on the anticipated final ANDA approval (tentative approval already received)

The judicious combination of specialization and diversification in managing our therapeutic and product portfolio enabled the Company to report sustainable growth in the competitive generics space. As a result, Orchid could:

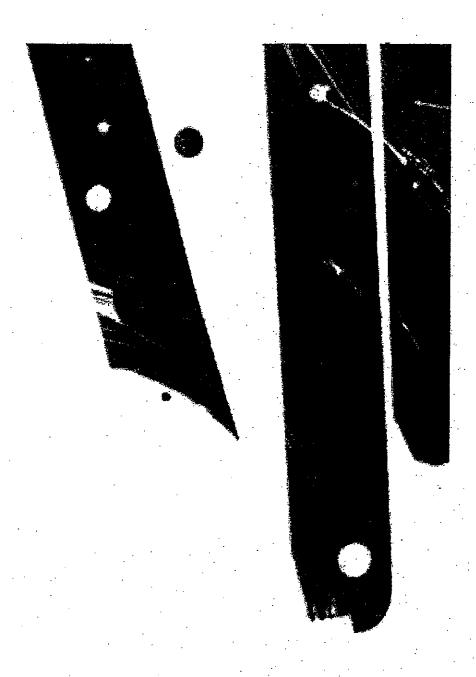
- + Ensure a sustained pipeline of niche generic products, capable of generating premium revenues and profits
- + Compete in a challenging generics marketplace based on exclusivity and differentiation, seeking a growing market share and greater brand visibility
- Achieve a fast-track growth in its chosen geographies; first in the emerging markets through APIs and now in the US generics market as a dominant antibiotic generics player

Creating a core competence out of globally benchmarked facilities

Aseptic manufacture requires a high degree of attention in the design of facilities, selection of equipment and maintenance of class conditions. As an extension, the corresponding regulatory and compliance barriers represent some of the highest standards in the pharmaceutical space the world over.

Creating facilities in line with these standards is a core competence at Orchid. Several approvals received for sterile products and sterile plants from US FDA and UK MHRA are a reflection of this competence.





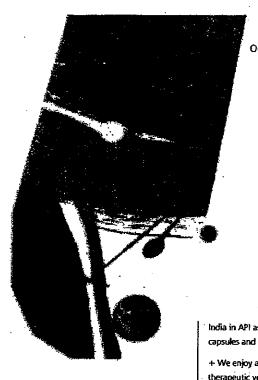
scale+scope

=leadership

IN GENERICS, MOST MANUFACTURERS PREFER TO DE-RISK THEIR BUSINESS MODEL BY SELECTING PRODUCTS THAT CAN BE MANUFACTURED IN MULTI-PURPOSE PLANTS. ORCHID HAS DARED TO FOCUS ON SCALE AND SCOPE IN CHOSEN SPECIALIZED PRODUCT VERTICALS INSTEAD, WITH THE OBJECTIVE TO ACHIEVE SEGMENT DOMINATION AND COST LEADERSHIP



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- + Since inception, Orchid chose product segments that offered a mix of oral and sterile products spanning multiple generations with a differentiated therapeutic window. As a result, in complex product categories like cephalosporins, Orchid's brand enjoys the favourable recalt of a global 'one-stop shop'
- + Each year, we added facilities, products and capacities, strengthening our global scale and scope; we excelled in products that involved high entry barriers in the form of complex chemistry, sophisticated technology and high investments. Today, we manufacture virtually every cephalosporin product, whether oral crystalline, sterile crystalline or sterile lyophilised, with global scale capacities in

India in API as well as sterile vials, tablets, capsules and dry syrup bottles

- + We enjoy a presence across multiple therapeutic verticals comprising cephalosporins, betalactams, carbapenems and life-style drugs, each requiring dedicated investments in API and dosage form facilities, deploying sophisticated technologies – a feat matched only by few global companies
- + Even as our scale and scope were extended across the various therapeutic groups, the common threads of complex chemistry and aseptic manufacture served to strengthen core competencies, while enhancing our overall competitive edge
- Our development and manufacturing exposure across these multiple specialized therapeutic verticals cover around 128 acres of sites in different locations with several discrete production plants; another 80 acres of sites have been acquired or are

under acquisition for new projects or verticals

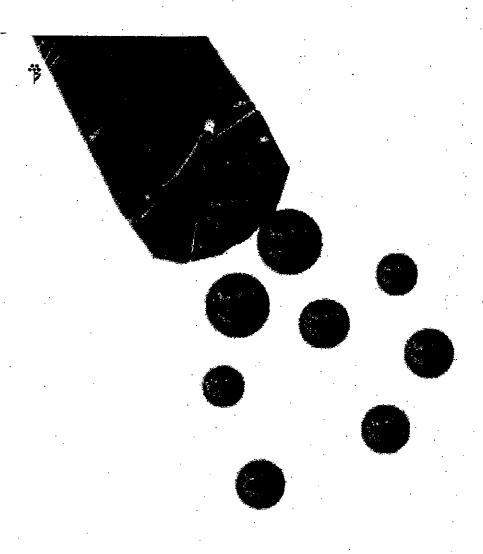
+ The remarkable strategic blend of scale and scope has helped Orchid secure industrial leadership, earning appreciation for its execution excellence across facilities on the one hand as well as product development and manufacturing capabilities on the other

The result has been

- + Our current product range for the US market comprises 21 antibiotics and 20 non-antibiotic dosage forms, many of which are also aimed at European as well as other regulated and emerging markets
- Our development pipeline for the next three years includes over 60 products across diverse therapeutic groups for US,
 European and other regulated and emerging markets
- + We emerged as a comprehensive, versatile, end-to-end connected player, facility-wise, from API to dosage forms across multiple therapeutic groups

Competence in establishing cGMP facilities with faster turnarounds
Orchid possesses unique capabilities in the execution of multiple development and
manufacturing projects. This competence is reflected in the completion of these
projects within progressively tighter schedules in compliance with stringent US FDA and
UK MHRA standards. Over the last 10 years, Orchid has completed at least 20 such
projects with typical lead times of a mere 18 months from ground breaking to total
facility validation – in lower timeframes than the corresponding international standards.





innovation+determination

=discovery

IN THE PHARMACEUTICALS BUSINESS, AN ABILITY TO DEVELOP ORIGINAL MEDICINES REPRESENTS THE ULTIMATE COMPETITIVE ADVANTAGE. AS A FIRST GENERATION ENTERPRISE, ORCHID FOCUSED FIRST ON THE API MODEL AND LATER ON A GENERICS DOSAGE FORM MODEL TO BUILD ITS BUSINESS; THEREAFTER, IT PROACTIVELY INTEGRATED THE BUSINESS OF TODAY WITH THE DRUG DISCOVERY OF TOMORROW

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- + Over the last few years, we invested more than US\$ 60 million to develop a world-class infrastructure for new drug discovery and development in Chennai with associated lacilities for process research, pharma research and biotechnology
- + We consistently invested around 7% of our annual turnover on R&D, a significant portion in the area of drug discovery. We channelized our drug discovery activity through Orchid Research Laboratories Limited, a wholly owned subsidiary, for enhanced focus
- + To wideri our therapeutic coverage across metabolic diseases (led by diabetes and obesity), we invested in Bexel Pharmaceuticals Inc., a US entity, and also enhanced our stake to 100% in the fiscal year 2007
- + We built a multi-therapeutic, multilead new chemical entity (NCE) development pipeline of 15 compounds in six therapeutic

- programs of diabetes, inflammation, oncology, obesity, depression and antiinfectives
- + Over a short span of time, we could take our anti-diabetes molecule into a larger proof-of-concept Phase II (a) human clinical study; one lead from our oncology program and another from our inflammation program are under development to enter Phase I human clinicals in this fiscal
- + We provided contract research and manufacturing services to global pharmacos and speciality discovery companies; contracts with Pfizer Inc. and Biovitrum AB represent two successful partnerships

Orchid recognizes that innovation and determination represent the essential prerequisites for successful drug discovery. At Orchid, this combination has resulted in the following:

- + Emerging as one of the very few Indian pharmacos with end-to-end connected drug discovery and development capabilities with global expertise
- Establishing a medicinal chemistry platform that can cater to the discovery needs of multiple simultaneous therapeutic programs
- + Acquiring a deep biological expertise in validating leads (in vitro and in vivo), across several challenging areas of drug development like diabetes, inflammation, oncology and anti-infectives
- + Accessing cutting-edge technologies in drug development through a front-end presence in the United States while creating a vast scientific powerhouse for integrated discovery operations in India.

Orchid deploys a judicious mix of structure-hased drug design with best-in-class clinical efficacy on the one hand and target-based drug design with novel mechanisms of action on the other. The objective is to discover safer and more effective drugs in blockbuster and niche therapeutic areas. The result: Over 130 patent applications have been filed across national and international patent offices in the area of drug discovery with several publications and patent grants from European and US patent offices.

**

people+processes

=excellence

THE PHARMACEUTICAL INDUSTRY REPRESENTS A CHALLENGE IN TALENT MANAGEMENT AND BUSINESS PROCESS DEVELOPMENT ON ACCOUNT OF AN ONGOING EMPHASIS ON REGULATION AND COMPLIANCE ON THE ONE HAND AND INNOVATION AND CREATIVITY ON THE OTHER. ORCHID'S UNIQUE PARADIGM OF EMPOWERED 'PEOPLE AND PROCESS' MANAGEMENT HELPS ACHIEVE THESE TWIN OBJECTIVES



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- + From an initial five-member team,
 Orchid is now a 3,200-plus diversified
 organization, spanning multiple
 locations, countries and functional
 domains. In the process, Orchid has
 transformed from an API and less
 regulated market-oriented Company to a
 fully integrated pharma corporation with
 a distinctive regulated market focus.
- + To achieve this transformation, Orchid consistently invested in new competencies ahead of each strategic change
- + Orchid's core values of respect for human resource and empowerment, have emerged as a unique cohesive force, complementing established and new skill-sets with an integrated, motivated organization
- + The organization structure was reinvented periodically, deploying

concepts like divisionalization and strategic business units to achieve organizational flexibility in line with everchanging needs

 Quality and regulatory compliance were accorded as much attention as creativity and innovation, resulting in a unique performance-centric culture; we successfully addressed various international challenges

The emphasis on people and processes has resulted in the following:

- + Orchid enjoys among the lowest attrition rates at senior management levels, reflecting the positive impact of empowerment and leadership opportunities
- + Scientific kleas have now grown into institutionalized departments in domains

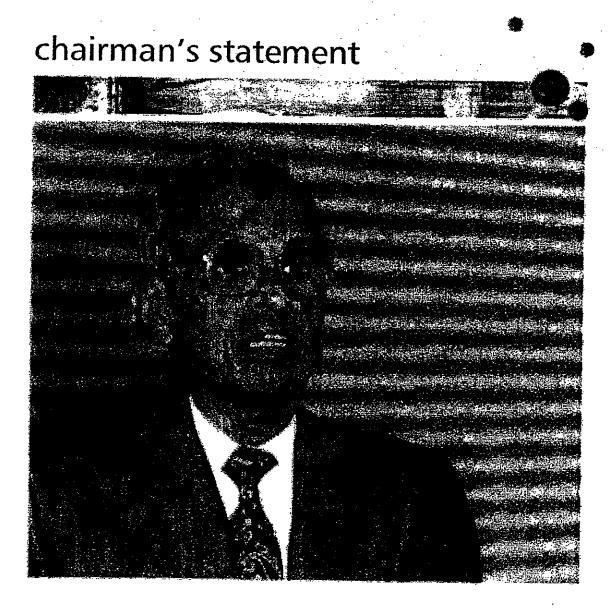
as diverse as API, dosage forms, biotechnology and discovery research; new facilities and laboratories are being continuously created through individual initiatives, leading to a culture of organizational excellence

- + Orchid has retained the nimblefootedness and flexibility of a first generation enterprise even as it has matured into a multi-business, multiproduct and multi-locational pharmaceutical organization
- + Orchid has successfully drawn on the innovative ideas and cost management skills of its people across domains to achieve consistent improvements in process yield, solvent management, product development and enhanced manufacturing throughput

Collaboration as the key to organizational success

At Orchid, people across locations collaborate to implement programs that make a difference in the organizational culture; it could be the introduction of an ERP solution enhancing pan-organization functionality, or a safety excellence journey touching every person across the organization.





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Dear members

It gives me great pleasure to pen this message to you in a year of record performance at Orchid.

All through the years, Orchid achieved an amazing and consistent growth, quantitatively and qualitatively. Visionary leadership and entrepreneurial energy cascading across the organization have enabled Orchid transform itself from an API and less regulated market oriented company to a fully integrated global pharmaceutical corporation. This remarkable structural transformation has few parallels in the Indian industry. An unrelenting emphasis on science, technology and intellectual power of the people has been a hallmark of this value chain transformation.

The years to come will see Orchid reap the full benefits of the world-class asset base and organizational competencies it has established across the domains of API, finished dosage forms and drug discovery. As the Company scales new trajectories of higher order growth, I am confident that all the stakeholders will experience the benefits of higher value that would be created at Orchid.

R Narayanan





Become an integrated pharmaceutical corporation of global scale and standing with a comprehensive coverage from 'Discovery to Delivery'

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the corporate behind the brand

ORCHID CHEMICALS & PHARMACEUTICALS LTD. (ORCHID) IS A GLOBALLY RECOGNIZED, INTEGRATED PHARMACEUTICAL COMPANY COVERING THE ENTIRE VALUE CHAIN.

Our business

- + A vertically integrated pharmaceutical company
- + World-class in research, manufacturing and marketing capabilities

Our products

- + Presence across multiple therapeutic segments with a leadership in the antibiotics segment and sterile APIs / dosage forms
- + Range includes cephalosporins, betalactams, carbapenems (all life saving antibiotics) and cardiovascular, neuro-psychiatry, osteoporosis, anti-histamine and other life style products

Our presence

- + Headquartered in Chennai, India
- + Two API manufacturing facilities in India and one API facility in China
- + Three manufacturing facilities for finished dosages in India
- + Two R&D campuses in India
- + Presence across 70 countries through alliances with global marketing leaders, distributors, agents and customers

Our collaborations

- + Joint venture for the manufacture of sterile cephalosporin APIs in China (NCPC Orchid Pharmaceuticals)
- + Marketing alliances with Apotex Inc., Actavis, DAVA, Hospira and other leading companies
- + R&D alliances with Pfizer Inc. and Biovitrum AB

Our credentials

- + Ranked among the 15 leading pharmaceutical companies in India and among the five leading cephalosporin antibiotic producers in the world
- + Facilities approved by US FDA and UK MHRA with additional certifications from EDQM and TGA

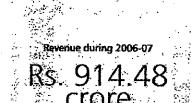
Our competitive advantage

- + State-of-the-art product development and manufacturing facilities
- + Spanning the entire pharmaceutical value chain; from API to finished dosages, from drug discovery to drug development
- + Stringent quality, regulatory and compliance standards
- + Global alliances and partnerships



what we are

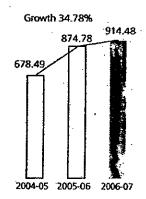
February 1994



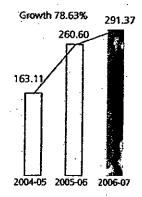
Number of employee

EBIDTA during 2006-07 Rs: 291.37 Crore

Revenue (Rs. crore)



EBIDTA (Rs. crore)



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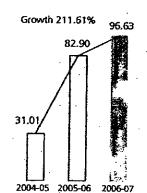
value enhancement

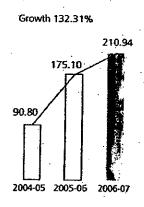
PAT margin



PAT (Rs. crore)

Cash profit (Rs. crore)





how our entry into the regulated generics business ramped up value in 2006-07



Business

- + 5% increase in turnover over 2005-06
- + 19% increase in dosage forms business over 2005-06
- + Significant market share increases in key products; dominant shares in select products



Regulatory filings

- + Filed 16 DMFs and 14 ANDAs in US (cumulative 46 DMFs and 40 ANDAs)
- + Filed 11 dossiers in the European Union (EU) and Australia, New Zealand (ANZ) in 2006-07 (cumulative 14)
- + Received approvals for seven ANDAs in 2006-07 (cumulative 18)
- + Received several US FDA and UK MHRA approvals for various products and facilities



Financial

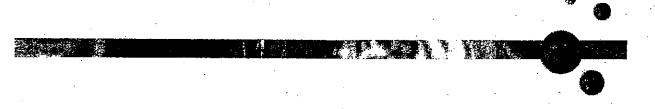
- + Increased EBITDA to Rs. 291.37 crore and EBITDA margin to 32%
- + Increased PBT to Rs. 110,59 crore and PBT margin to 12% -
- + US\$ 82.6 million GDR cum FCCB issue in November 2005 to support growth and operations
- + US\$ 175 million FCCB issue in February 2007 to reduce expensive debt of about US\$ 138 million



Projects

- + Invested in and completed projects for expansion and diversification in the cephalosporin, betalactam and non-penicillin, non-cephalosporin (NPNC) or lifestyle drug spaces. Projects in carbapenem and upscaled NPNC space under advanced completion
- + Cephalosporin projects already translated into revenues; betalactam, carbapenem and NPNC projects will translate into revenues in this fiscal and beyond

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New products

- + Five generic products in multiple dosage forms and dosage strengths launched in the US
- + Achieved significant market shares in key products and dominant shares in certain products



Alliances .:

- + Entered into an alliance with Mayne (Hospira) to market niche antibiotics in US, EU and ANZ
- + Entered into an alliance with Actavis to market nine key cephalosporin finished dosages in Europe



Research partners

- + Entered into a long-term agreement with Pfizer in the area of contract research and manufacture in the field of veterinary medicines
- + Signed an agreement with Biovistum to undertake medicinal chemistry for NCEs in an identified target area



Operations

- + The manufacturing and productivity parameters enhanced to meet higher volumes and increased product varieties in the regulated markets
- + Supply chain management optimized to handle multiple SKUs

from the managing director's desk



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Towards US\$ 1 billion

Den Shareholders,

It is an interesting time to be addressing you. We have done well in the recent past and we are perched on the cusp of an exciting future.

Let me begin with a review of how we performed in 2006-07. We widened our product range, extended our marketing reach, grew our product pipeline and enhanced our global presence. The result is the highest ever EBIDTA of Rs. 291.37 crore and a record profit after tax of Rs. 96.63 crore in our existence.





Road ahead

It took us 13 years to reach Rs. 10 billion in revenues from commencement of operations, which is a record for our business in India; we expect to reach US\$ 1 billion in less than half the time.

What is the possibility that we can do this? Are we being realistic? These are the questions that could be on the minds of stakeholders:

My optimism is based on the foundation of a major strategic transformation we have achieved. It is also validated by the fact that we have delivered on our promises and goals in the past. Our aspiration is thus anchored in an encouraging past, a credible present and a realistic future.

Promises kept

It would be pertinent to reflect on how we have transformed our business over the last few years; this represents the foundation of why I believe that we will deliver increasing value over the coming years. We started off as a mono-therapeutic company concentrated in cephalosporin APIs, marketing our products to the under-regulated markets. In 2001-02, we made a significant strategic shift and embarked on a three-year transformation of our business model:

- + We planned to move into high-end therapeutic segments, both antibiotics and non-antibiotics
- + We resolved to scale up the value chain from APIs to finished dosage forms
- + We strategized to establish our presence in the regulated markets, particularly through dosage forms

As we closed fiscal 2007, this is what we achieved:

- + We completed the establishment of world-class infrastructure for a range of antibiotics and non-antibiotics, securing several international approvals
- + We entered into distribution alliances with top-ranking generic players in the

US and Europe, almost always tying up capacity in advance

- + We marketed several generic dosage forms in the US; we achieved over 40% of our revenues in 2006-07 from regulated markets
- + We laid a robust development and regulatory calendar for a continuous pipeline of products for further launches in the regulated markets
- + We created world-class infrastructure and scientific competencies for drug discovery, with multi-therapeutic, multilead programs

Our growth strategy
At Orchid, we have laid the foundation
for a robust and sustainable growth
strategy to harness two attractive and
sustainable business opportunities:

Generics: The global generics space continues to offer a significant opportunity even after one considers that generic products tend to lose a significant part of their price following Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 22 > 23



Orchid was ranked as the 'most investor friendly company'

- Business Today, July 30, 2006.

launch. Orchid enjoys a positive differentiation given its high technology niche product focus. Each year, a large number of molecules will go off patent creating a growing market opportunity. Besides, Orchid's focus on specialty pharmaceuticals will provide a remarkable opportunity with exclusivity benefits across a significant period.

Drug discovery: The growing costs of new chemical entity research and lengthening new drug approval periods are prompting global pharmaceutical companies to partner with drug discovery companies that offer competitive new product pipelines as well as research services. Orchid, with its world-class medicinal chemistry, biology infrastructure and a pipeline of NCEs in various stages of development, is poised to participate in this challenging innovation space.

Positioned to capitalize I am happy to state that we are competently positioned to capitalize on these opportunities through the following organizational attributes:

Speed: Speed in decision-making and execution.

Exclusivity: Strategic selection of complex and intellectually challenging segments.

Anticipation: Proactive analysis of emerging opportunities; an accurate timing of market entry to capitalize on a first-mover advantage.

Risk appetite: Investment in high reward-high risk segments where success can position us among a select few in the world.

Empowerment: Facilitating experts, leaders and doers to drive organizational growth.

Value for shareholders
Over the last two years, our topline
grew by 35% and the bottomline grew
by 212%. Even more significantly,
EBIDTA margin, the key marker of
operational excellence and profitability,

reached an impressive watermark of 32% in 2006-07.

We do have a relatively high level of debt, which was required to fund projects for regulated markets ahead of market opportunities. We have already taken steps to reduce our interest burden and improve our debt-equity ratio through overseas issues of GDRs and FCCBs. The anticipated increases in revenues and profits as a result of our various initiatives will further pare down debt in an EPS-accretive manner over the near future,

I am optimistic that this is only the beginning of a new phase of increasingly remunerative business development, enhanced value for all our stakeholders and superior returns for our shareholders as we evolve into a globally respected pharmaceutical organization.

K Raghavendra Rao

ij

strategic review

"Over the last few years, Orchid's business has become multifaceted and multi-continental, characterized by diversified therapeutic verticals and product range, world-class facilities for APIs and finished dosage forms with end-to-end connectivity, deepened value chain with focus on regulated markets and dosage forms and value building asset and knowledge platforms in drug discovery. The strategic and structural transformation achieved by Orchid has propelled the company into new horizons of growth"

Dr C B Rao, Deputy Managing Director

At Orchid, we implemented a number of initiatives in the last three years to transform our business. While their impact is only partially visible today, we are optimistic that they represent the foundation of our evolution and growth as an Indian pharmaceutical company transforming into a distinctively global corporation.

A total business transformation As early as 1999-2000, despite a successful API business in less regulated markets, we recognized the limitations arising out of our large presence in the under-regulated countries for the following reasons:

- + The under-regulated markets were integrating either forward or backward across the industry value chain
- + Most transactions were price-driven (as opposed to quality) resulting in commoditization characterized by declining margins
- + True value for Orchid as a science and technology-driven company would emanate from focusing on higher value-

added products and markets

+ Harmonization of India's patent regime with a global product regime would offer new opportunities for Orchid in the global pharma space

At Orchid, we resolved that if we were to sustain our growth, we would need to 'move up the pharmaceutical value chain' and into marketing geographies which reward regulatory standards and intellectual accomplishments. The following is a discussion of the initiatives that made our transformation a reality.

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- 1. Extention into formulations
 At Orchid, we scaled the value chain
 from APIs to formulations seamlessly;
 we invested in a state-of-the-art multitherapeutic formulations complex for
 the following reasons:
- + Formulations would help us operate more directly in the healthcare market space, capturing higher value and securing higher returns, depending on product complexity and competition
- + An end-to-end presence from API to formulations would enable us to become completely integrated; we would be able offer our customers, products and services across the pharmaceutical value chain with high reliability and control over the entire supply chain, widening our client base
- + A move into formulations would enhance our brand and visibility in the global pharmaceutical industry

Initiatives: We selected products in the cephalosporin antibiotic segment.

Commencing from 2004, we filed 18 ANDAs with the US FDA in the very first year (cumulative 29 antibiotics, including a few betalactams). We received approvals for 18 products so far. Starting with sterile Ceftriaxone injections in the US market (second quarter of 2005-06), we successfully

launched several other cephalosporin medicines, both oral and sterile.

Results: Revenue from the formulations business increased significantly – from 14% of revenues in 2004-05 to 44% in 2006-07; in absolute numbers, we doubled our formulations revenues in 2006-07.

Initiatives: We expanded our alliances to include betalactam antibiotics and non-antibiotics, besides cephalosporin antibiotics. We increased our total DMF count to 46 and ANDA count to 40.

Results: Our product range is multitherapeutic; the first non-antibiotic products are set to be launched this fiscal.

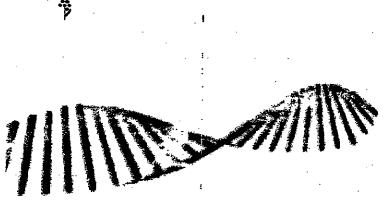
- Focus on regulated markets
 We resolved to enhance our exposure in the regulated markets of US, EU and Japan for the following reasons;
- + US is the largest single market for pharmaceuticals and generics, accounting for over 50% of the US\$ 600 billion global pharmaceutical market; EU and Japan account for about 33% of the global market
- + Enhanced prospects of a sustainability in revenues and margins through a presence in a large market, that also rewards intellectually-driven product offerings

- + Enriched value-volume mix of revenues from US and the EU, providing us with a better potential for innovation and quality enhancement
- + Increased visibility for the Company's brand in these important global markets

Initiatives: We invested management resources and intellectual capital towards developing products, building plants and securing regulatory approvals to meet this objective.

Product selection: We selected to enhance our presence in the cephalosporin, betalactam and carbapenem segments (antibiotics therapeutic category), a high return segment marked by low competition, but involving significant technical and commercial challenges. Within these segments, we selected to specialize in products with complex chemistry and high patent protection, an area with significant entry barriers. As a result, even as we were present in the area of generics, our products reported a lower price erosion and higher profitability.

An analysis of the emerging global pharmaceutical industry showed that while near-term prospects would be driven by cephalosporins and betalactams, sustainable growth would be driven by carbapenems, a futuristic



Recent regulatory accomplishments In 2006-07 and the first quarter of this fiscal Orchid further reinforced its exceptional regulatory track record in terms of several international approvals.

- + Our dosage form plants for sterile cephalosporin injections and oral cephalosporin products (at Chennai) were approved by UK MHRA
- + Our API plants for oral and sterile cephalosporin

range of high value antibiotics. While carbapenems was the immediate option, keeping our core competence in mind we needed to move into non-antibiotics segments as well. We identified the high-growth lifestyle segment, which is expected to grow faster than the market as a whole. We selected products in the cardiovascular system (CVS), central nervous system (CNS), osteoporosis, anti-diabetes and pain management segments, among others, as our prospective growth drivers.

Plant approvals: We established, validated and commissioned multiple manufacturing plants for APIs and dosage forms in a tight time span to meet the above product needs. We progressively obtained US FDA and UK MHRA approvals and put in place an approved infrastructure for concurrent growth across several product verticals.

Marketing tie-ups: We forged alliances with alcohol majors for marketing and

warketing tie-ups: We forged alliances with global majors for marketing and distributing our products in the regulated markets, representing a win-win for the Company and the respective business partner, for the following reasons:

+ Combining the development and

manufacturing capabilities of Orchid with the trans-continental marketing network of our business partners, minimizing our time-to-market and product ramp-up

- + Favourable commercial terms with mutual exclusivity based on transparent performance indicators, enhancing business
- + Complementary marketing arrangements based on smart product choices
- + A basket of products tied to a partner's expertise and capability, providing benefits of higher manufacturing and marketing throughput in each case

Regulatory filings: For growing our regulated generics business, we successively launched products in the US, based on ANDA approvals. Our marketing alliances generated revenues of US\$ 112 million with only six products (in 11 dosage forms) being launched in the US markets. As we enjoy alliances for a cumulative 41 products (21 cephalosporins and 20 NPNC products) in several dosage forms, multiple SKUs and a number of products extendable to EU and other markets, we believe that a huge growth

opportunity awaits us.

Results: Business from the regulated markets grew significantly in less than two years of roll-out from July 2005; their contribution to our total turnover stood at 44% in 2006-07.

Focus on fundamental innovation
We focused on generics (antibiotic and
non-antibiotic segments) that are
extensively patented, require high
intellectual capabilities and involve
challenging chemistry with stringent
process and reaction conditions.

Initiatives: With respect and passion for intellectual property, we developed and filed a cumulative 442 applications with various national and international patent offices; of these, 44 were granted and 150 were published. Of the total filings, 30% related to NCE and a few other products of innovation research with significant value.

Results: As a result of these initiatives, we transformed ourselves into a multi-product, multi-geography and multi-capability organization. The focus on innovation helped us develop products, which are technically superior and cost-effective. By focusing on non-infringing process research and formulation development, we ensured the failure-

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products (at Chennai) were also approved by UK MHRA

- + We successfully passed a repeat inspection by US FDA without any 483s for our oral and sterile cephalosporin API facilities (at Chennai)
- + Our high-end betalactam API plant (for Piperacillin-Tazobactam at Aurangabad) was approved by UK MHRA. The plant also underwent an inspection by US FDA without any 483s
- + Our high-end betalactam vial sterile lyophilisation facility

(for Piperacillin-Tazobactam at Chennai) was approved by UK MHRA. The ANDAs, which are based on this plant, are under advanced review by US FDA

+ Our oral solid API facility for non-penicillin, noncephalosporin products (at Aurangabad) successfully underwent an inspection by US FDA without any 483s. The ANDAs, which are based on this plant, and our non-penicillin, non-cephalosporin dosage forms plant at Chennai are under advanced review by US FDA

proof launch of our generic products.

Orchid - a commitment to the highest regulatory standards. At Orchid, the quest for achieving and sustaining the highest regulatory standards has been the motive force behind its transformation into a US-EU centric generics business.

Orchid has several API and dosage form manufacturing plants that cater to oral, non-sterile, sterile crystalline and sterile lyophilised products in cephalosporin, betalactam and non-penicillin, non-cephalosporin range. The dosage form plants include sterile dry powder injections, oral tables and capsules, oral dry syrups and sterile lyophilised injections. All these facilities have successfully undergone US FDA inspections and received plant approvals from the UK MHRA.

Orchid possesses a unique core competence in regulatory-compliant sterile facilities. Orchid's facility for generic cephalosporin dry powder injections approved by US FDA and UK MHRA and Orchid's high-end sterile betalactam vial lyophilisation facility (built to US FDA standards and approved by UK MHRA) reflect such competence. These have won the appreciation of global innovators as well as generics companies for their quality of design, execution and operation.

Following the US and EU submissions, Orchid enjoys an impressive record in terms of regulatory filings as well. In the very first year of ANDA filings, Orchid filed 18 ANDAs in the cephalosporin antibiotics space, the single largest filer of ANDAs in this space. Today, with a total of 29 ANDA submissions of cephalosporin and betalactam antibiotics, of which 18 cephalosporin

ANDAs have been approved, Orchid has the largest ANDA filing and approval track record in the antibiotics space. In addition, Orchid has filed 12 dossiers in EU.

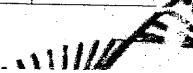
In the non-antibiotics space too, Orchid could make as many as 11 ANDA submissions within a short time span and is now geared to step up submissions. The approval lead times have been consistently better than the industry average and within the highest percentile, indicating the quality of its documentation discipline.

These achievements testify to the depth and breadth of Orchid's regulatory capabilities and compliance standards especially with a focus on stringent regulated markets.

The recent regulatory achievements, capping the achievements of the earlier years, underscore our capabilities in

	Territory	Filed in 2006-07	Cumulative filings	Cumulative approvals
ANDAs	US	14	40	18
ANDSs	Canada	1	6	2
Dossiers	EU, ANZ	11	14	1
DMFs	US, EU, ANZ	20	46	*

approved as part of finished dosage form approval processes





establishing world-class manufacturing facilities for a range of critical antibiotics and non-antibiotics as well as securing international regulatory approvals for our facilities and products.

We continue to file several DMFs and ANDAs with US FDA and dossiers with UK MHRA at an aggressive pace. We continue to maintain a record of speedy approvals from US FDA for various ANDAs, including those for complex sterile products, despite lengthening queues for such approvals.

We are also in the process of completing a new sterile API plant at Aurangabad and a new sterile dosage forms plant at Chennai for the futuristic carbapenem range of products.
Facilities for the upscaled production of NPNC APIs and dosage forms are under advanced completion at Aurangabad and lrungattukottai (Chennai) respectively. We are also establishing a second high-speed line for manufacturing sterile cephalosporin dry powder injections as an adjunct to our existing cephalosporin facility.

Orchid's regulatory track record is distinguished by the speed and correctness of project execution, the timeliness and quality of regulatory documentation and the overall positive approval record. Our track record makes us confident of securing speedy international regulatory approvals for these projects, contributing to a broader and richer range of product registrations, facilitating a consequent upswing in regulated market revenues over the years to come.

Looking ahead

We identified the following principal growth areas:

1. Regulated generics business US & Europe: The growth in revenue and profitability from formulation products for regulated markets, especially US and Europe, is expected to accelerate. In the antibiotics space we expect to launch new products in the cephalosporins, betalactams and carbapenem spaces between 2007 and 2010 in US, EU and Japan. These antibiotics typically possess challenging chemistry and require dedicated facilities. A few complex products are in the injectable space with limited competition. In the non-antibiotic space, Orchid is developing a robust pipeline of over 80 products covering diverse therapeutic segments; we already enjoy marketing alliances with international players for 20 NPNC products in the US. The Company could also seek inorganic growth

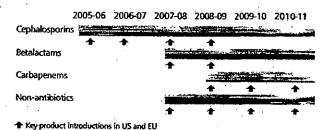
opportunities to shrink the gestation period for product development, regulatory approval and market access in Europe.

Japan: The Company intends to establish a marketing presence in the second largest pharmaceutical market in the world (estimated at around US\$ 60 billion), recognizing the following unique factors that could be leveraged for a niche position:

- + Among the toughest quality standards in the world with stiffer impurity profiling norms
- + Procedures are tougher; bioequivalence testing needs to be compulsorily done on Japanese volunteers, the cost of which is about four times the accepted international standard
- + The Japanese regulatory authority has been accepting filings only once a year for product approvals unlike in other regulated markets where the product filing and approval process is continuous
- + Marketing needs to be done by a local enterprise, necessitating the establishment of an own entity or a joint venture in that geography

Orchid expects to establish a foothold in tapan, leveraging its product portfolio, Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 28 > 29

Orchid's API and dosage form facilities enable integration across the value chain, imparting a flexibility to cover molecules across therapeutic areas and across geographies. As a result, the Company has a niche generics business model with an existing product pipeline to steer the Company's prospects across the foreseeable future.



quality / regulatory infrastructure and relevant business strategy.

Support to brand companies: With the increasing pace of genericisation and a spate of Paragraph IV - first-to-file cases, branded companies could be looking for additional strategies to protect their profitability. Orchid is competently placed to offer them support ahead of patent expiry by supporting their operations at competitive rates, a win-win proposition in the following ways: strengthening the innovator's robust profitability over a longer period (compared to having an authorized generic) and growing our volumes, profitability and presence with the additional prospect of emerging as an authorized generics player for the innovator company.

 Innovation-led business
 Long-term value for the Company will accrue from several initiatives being undertaken in the drug discovery and R&D services spaces.

New drug discovery: This is perhaps the most challenging, yet most valuedriving opportunity. Realizing that science and serendipity play a role in this field, Orchid has deliberately chosen to work simultaneously on a few therapeutic programs and development platforms, thereby enhancing chances of success. The six therapeutic programs chosen for drug discovery have a significant market potential, marked by specific needs for new compound development. In addition, they also synchronize well with Orchid's overall manufacturing competencies, which provide certain advantages in providing scale-up and industrial scale quantities as projects move forward.

Novel drug delivery systems (NDDS): NDDS is a major opportunity in the innovation-led play, governed by the ideas that therapeutic efficacy, drug tolerability and patient convenience can be enhanced even for existing drugs, leading to better prescription compliance and more effective healthcare. The Company is leveraging its chemistry and formulation capabilities to develop this as a growth driver. These products, once developed, will provide a multi-year exclusivity for each approval and could emerge as helpful tools of product life cycle management by innovator companies.

Custom Research and Manufacturing Services (CRAMS): CRAMS is a multibillion dollar opportunity for Indian pharmaceutical companies possessing requisite competencies. We expect to capitalize on this, leveraging our worldclass facilities and competencies. Our completely integrated business model, cutting-edge research, capabilities, GLP-approved infrastructure, quality assurance and regulatory standards empower us to provide pharmaceutical services to global pharmaceutical companies at any point of the value chain.

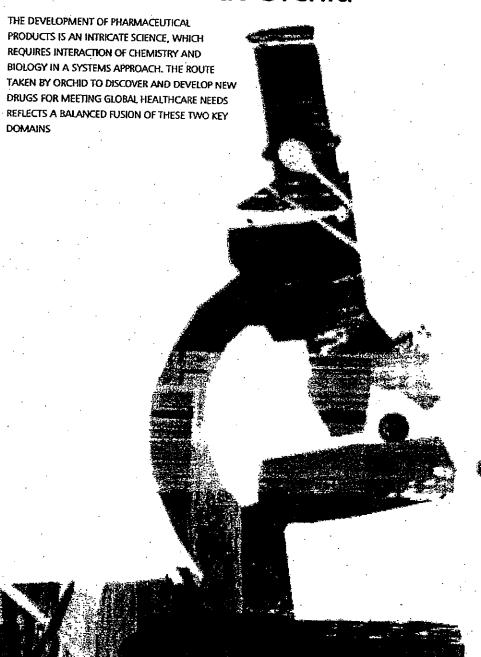
In this respect, we already have two agreements in the area of custom research and manufacture:

- + With Pfizer Inc. for animal healthcare products
- + With Biovitrum AB to undertake medicinal chemistry

As an endorsement of our deep infrastructural and organizational capabilities in product development and manufacture as well as drug discovery and contract research, we were bestowed the awards of 'Partner of Choice for Competitive Excellence and Contract Research — Collaborative Drug Discovery' by Frost & Sullivan for two separate years.



integrated drug discovery – a key differentiator at Orchid



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Orchid has established an end-to-end connected infrastructure for drug discovery and development which starts with in-silico design of new compounds or New Chemical Entities (NCEs) and takes the NCEs through several iterative stages of medicinal chemistry, analytical chemistry, scaleup chemistry, in-vitro and in-vivo biological screening for microbiological, pharmacological and safety parameters, CMC (chemistry, manufacturing and controls) and formulation through several specific departments looking after each domain. The drug discovery paradigm is thus geared to take NCEs with a structured program of synthetic, preclinical and clinical project flow.

To achieve this, Orchid invested in an integrated drug discovery infrastructure comprising a bioinformatics center, drug discovery centre, analytical centre, biology centre, pre-clinical facility including animal house, kilo laboratory and other associated facilities in its seven acre R&D campus in Sholinganallur, Chennai.

The R&D infrastructure at Orchid is certified for Good Laboratory.

Compliance (GLP) by the National GLP Authority of India, aligned with the OECD Principles of GLP. The R&D systems also meet world-class standards in terms of generation and protection of intellectual property, full-fledged development and operational quality assurance systems and regulatory protocols. Systems for the establishment and management of compound libraries, laboratory notebooks and the archiving are in line with global practices.

At Orchid, R&D initiatives for drug discovery are channelized through a wholly owned subsidiary, Orchid Research Laboratories Limited (ORLL), which also has a front-end entity in the US in Union City, San Francisco (called Bexel Pharmaceuticals, Inc.). ORLL is significantly benefited by the access to process research, formulations research and biotechnology research of the parent company as well as the end-to-end connected cGMP industrial scale facilities covering API and dosage

forms across multiple therapeutic groups.

By leveraging superior infrastructure and deploying a judicious blend of structure-based drug design and target-based drug design, Orchid has been able to simultaneously work on six therapeutic programs and 15 lead NCEs. Orchid considers its multi-therapeutic and multi-lead discovery capability as a successful reflection of its R&D initiatives.

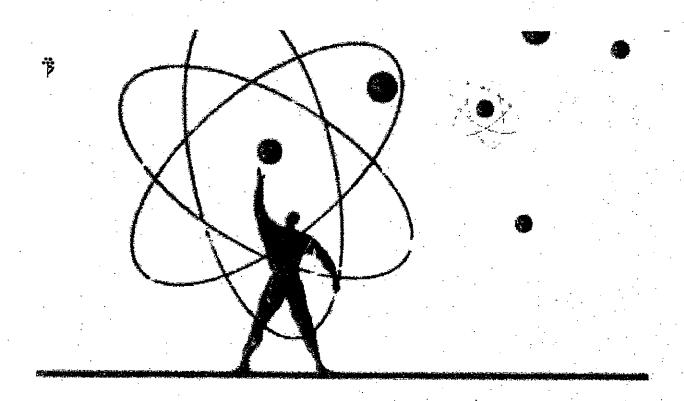
Summary

At Orchid, the investment phase is complete with respect to all its chosen business lines and product groups. The Company invested significantly in technologies and capabilities with the objective to generate attractive returns, which are already evident.

The Company expects to further enhance value through its proactive strategy: intellectually-driven growth, operational excellence and presence in value-added areas.

Orchid's discovery pipeline is as below:

Therapeutic Segment	Category	Discovery	Early Pre-clinical	Late Pre-clinical	Regulatory Toxicology	Phase I Clinical	Phase II Clinical
Diabetes	Tyosine-TZD, Non-PPAR DPP IV Inhibitor Non-TZD, Non-PPAR Novel						
Inflammation	Th I/Th2 Symhase Inhibitor PDE IV Inhibitor Kinase Inhibitor TNF => Inhibitor				•		
Oncology (Non-Cytotoxic)	STAY 3 AL-6 Inhibitor HDAC Inhibitor						
Obesity	Orexin receptor agonist						<u> </u>
Depression	MAD-A Inhibitor						
Anti-infectives	Oxazolidinone Cephalosporin Betalactamase Inhibitor					· · · · · · · · ·	



In 2007, Orchid Research Laboratories Limited received the Partner of Choice Award for Contract Research – Collaborative Drug Discovery from Frost & Sullivan

IN THE FIELD OF DRUG DISCOVERY, IT RARELY HAPPENS THAT A DISCOVERY ENTITY GETS TO PURSUE MULTIPLE THERAPEUTIC PROGRAMS SIMULTANEOUSLY AND ALSO POSSESSES CAPABILITIES TO PROVIDE WORLD-CLASS CUSTOM RESEARCH AND MANUFACTURING SERVICES FOR GLOBAL CLIENTS WITHIN A MERE FIVE YEARS FROM THE START OF DISCOVERY OPERATIONS.

Orchid Research Laboratories Limited ('Orchid Research'), a wholly owned subsidiary of Orchid, established for channelizing the drug discovery and development initiatives of Orchid, broke this barrier by building robust infrastructural and organizational strengths and reconciling them with a business vision and enhanced sensitivity to client needs. Its competitive excellence is reflected in the award given by Frost & Sullivan to Orchid Research Laboratories for being the top ranker in Contract Research-Collaborative Drug Discovery.

The parameters across which the Company was adjusted comprised:

Infrastructure capabilities

Knowledge capabilities

Business dynamics

Competitive advantage

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Orchid Research's multi-therapeutic, multi-lead portfolio and selective partnerships with global customers for their projects reflect its emergence in the global drug discovery space as a potential player.

Orchid Research reflects the presence of a well-thought-out strategy with the discipline of capable execution.

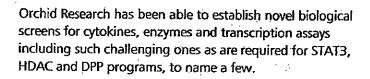
Infrastructural capabilities

- + Orchid's infrastructural capabilities cover all the key domains that are involved in end-to-end drug discovery, such as medicinal chemistry, biology, analytical, formulation, CMC and intellectual property
- + Orchid Research possesses several state-of-the-art medicinal chemistry laboratories with modern equipment and utilities, benchmarked to international standards and housed in a modern discovery centre spanning 60,000 sq. ft.
- + Another state-of-the-art 52,000 sq. ft discovery biology centre enables drug screening and development. The discovery centre has dedicated labs for in vitro as well as in vivo studies in microbiology, pharmacology, toxicology, including DMPK and ADME studies as well as regulatory toxicology studies essential for IND and IMPD filings of new drugs
- + The biology centre possesses a full-

- fledged, world-class animal house for breeding conventional animals (Swiss albino mice, wistar/NIN rats etc) as well as immuno-deficient animals (nude mice, scid mice etc) and transgenic animals (db/db mice, ob/ob mice, ZFD rat, DBAJ1 mice, Lewis rats etc.)
- + Orchid's analytical research infrastructure spread over a 10,000 sq. ft. area is equipped with sophisticated instruments such as 400 MHz NMR, LC-MS/MS, GCMS, HSGC-MS, HPLCs, GCs, FT-IR, UV-IS, Powder-XRD, DSC, TG, polarimeter, flame photometry, prep HPLCs, MPLCs, freeze driers (lyophilisers) etc.
- + Orchid also has a modern biotechnology laboratory equipped with PCR machines, spectrophotometers, -20°C and -80°C cold cabinets, protein purification system, HPLC, gel documentation system, fermentors (varying capacity) and isolation facilities for fungal transformations
- + Orchid's R&D facilities are GLP

- accredited by National GLP Authority of India and are compliant with OECD principles. The animal house is registered with the Control and Supervision of Experiments on Animals (CPCSEA) and monitored by Institutional Animal Ethics Committee (IAEC)
- + Orchid possesses global scale competencies to synthesize molecules from milligram to gram and kilogram quantities from laboratory or kilo-lab respectively and supply quantities to support pre-clinical or clinical studies
- + Orchid's formulation development infrastructure, set in a 44,000 sq. ft. modern pharma research centre supports development of finished dosages in a wide format of immediate release as well as sustained release and controlled release technologies in solid oral dosage forms (tablets, capsules and dry suspensions) and parenteral dosage forms (sterile dry powders and lyophilisation products)
- + Orchid Research has modern





bioinformatics software comprising Accelys products and predictive software and global patent databases such as Delphion, Integrity and Sci-Finder and STN which add edge and novelty to drug discovery

+ Further, access to Orchid's US FDA and UK MHRA approved cGMP facilities assures smooth ramp-up to industrial scale manufacture as required

Knowledge capabilities

- + Orchid has over 130 scientists dedicated solely to drug discovery, several of them with advanced degrees and some with overseas experience. The scientific manpower is being ramped up further
- + The range of scientific skill sets in medicinal chemistry, analytical chemistry, microbiology, pharmacology, toxicology and molecular modelling and intellectual property provide an integrated platform of holistic knowledge
- + Orchid Research has developed

globally competitive discovery knowledge platforms in the areas of inflammation, diabetes, oncology and anti-infective drugs. Platforms in depression, obesity and asthma are being established. Many of the targets are novel and validated

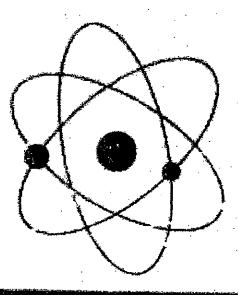
- + The Company has the ability to master any kind of chemistry, which is reinforced by innovative drug design and SAR platforms
- + The biological knowledge base is reflected by an ability to screen scores of compounds in the chosen therapeutic areas across several in vitro and in vivo biological screens on a regular basis
- + Orchid Research has been able to establish novel biological screens for cytokines, enzymes and transcription assays including such challenging ones as are required for STAT3, HDAC and DPP programs, to name a few
- + Orchid Research possesses a unique bank of over 3,000 clinical isolates.

which positions, the Company uniquely in the field of discovery of novel antibiotic drugs

- + The inherent molecular biology capabilities of Orchid's bio-technology domain enable certain key cell-based studies for a more insightful biological evaluation of NCEs
- + The ability to scale-up chemical development in a technologically efficient and cost-effective manner is an added advantage of process optimization and CMC skills
- + Orchid Research possesses an especially critical analytical capability in terms of metabolite detection, structure elucidation, impurity profiling and polymorphism studies which add greater value to new compound development

Business dynamics

+ The ability to take a molecule seamlessly from discovery through various pre-clinical phases to the human clinical studies is a contemporary Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 34 > 35



business requirement. Far greater emphasis needs to be placed in the fundamental discovery and development phases prior to Phase I human clinical studies so that the risks of any subsequent, and extremely costly, attrition from human clinical development can be avoided

- + By virtue of its infrastructure and knowledge capabilities, Orchid Research ranks among the top rung pharmaceutical entities in the country in terms of end-to-end connected drug discovery and drug development that reflects such global standards and requirements
- + Orchid is fully capable of meeting these challenges of modern-day drug discovery given its infrastructure and the competencies for innovative medicinal chemistry and biology as well as the deployment of sharper efficacy and safety screens
- + Orchid Research also believes in an early interface with potential clients to

ensure that its planned developments are aligned with potential customer and emerging global drug discovery needs

- + Orchid Research provides the much needed business flexibility with early phase to proof-of-concept collaboration possibilities, as well as contract research and development projects across multiple domains varying in scale and scope
- + in order to protect intellectual property of its partner, Orchid ensures complete intellectual firewalls to the teams working for partner companies. Our strong ethical values drive the business and activities at Orchid Research

Competitive advantage + Orchid Research is one of the select few Indian discovery companies combining highly selective cutting-edge biology and rational drug design concepts with a vast medicinal chemistry and biology capabilities of the Indian infrastructure, to catalyze multitherapeutic and multi-lead discovery programs

- + Orchid Research stands out in the drug discovery domain with the right mix of infrastructure, knowledge and business orientation, with faster decision making and execution excellence, reinforcing its position as a preferred partner
- + Orchid Research's project management, intellectual property management and quality management practices represent additional competitive advantages, valued in the drug discovery and development domains

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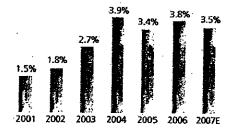
management's discussion and analysis



Global economy

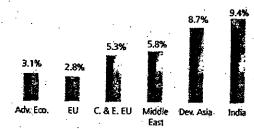
The global economy grew at 3.8% in 2006 and is poised for 3.5% growth in 2007 on a higher base. The emerging economies of Asia, Middle East, Central and Eastern Europe as well as CIS countries are expected to report a higher growth than the other geographies. India, in particular, has been posting high annual growth rates in GDP, the recent being a record growth rate of 9.4% for 2006. There has been an increasing global interest in India as a major partner country, not only for software services but also as a manufacturing and research outsourcing destination. Pharmaceutical products and services from India in particular offer attractive potential in this context.

World GDP growth



Source: IMF

GDP growth distribution (2006)



Source: IMF

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Global pharmaceutical market The global pharmaceutical market generated revenues of US\$ 643 billion** in 2006, a 7% growth over the previous year (source: IMS Health). The pharmaceutical growth in 2006 continued to be driven by increased population, higher longevity, strong economies and innovative products. Last year, some 31 new molecular entities (including biologics) were launched in key markets; on the overall, contribution to the global market growth by products launched from 2001 to 2005 reached US\$ 13.5 billion in 2005. Over 87% of the global pharmaceutical market was dominated by the developed markets of US, EU and Japan.

The global pharmaceutical industry is expected to grow to US\$ 842 billion by 2010; the anti-infectives segment,

valued at around US\$ 9.7 billion, is expected to grow steadily at 4 to 5%.

In 2006, generics represented more than half the volume of pharmaceutical products sold in the seven key world markets – US, Canada, France, Germany, Italy, Spain, and the UK – reflecting the changing balance between new and old products and the growing 'genericisation' of a number of primary care categories. In terms of value, however, the share was a low 20% due to the differential in value of patented and generic products.

R&D pipeline growth remained strong, especially in the number of products in Phase I and Phase II dinical development. As per an analysis of 47 top drug and drug delivery companies world-wide, by 2007, 1,345 products were in development (up 9% from previous year), including 146 filed NDAs

and 263 drugs in Phase III.

Cardiovascular, central nervous system, oncology, diabetes, endocrinology, gastrointestinal, respiratory, urology and infectious diseases represented some of the therapeutic areas with high levels of development activity. Of the total pipeline, some 30% were biologic in nature. The developers of new molecular entities are increasingly looking at outsourcing and partnership opportunities to strengthen their pipelines as well as reduce time and cost of new drug development.

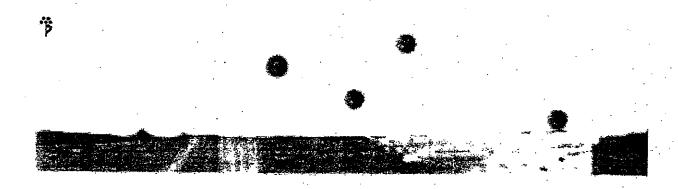
The outsourcing market in the pharmaceutical and biotechnology industry in 2006 was valued at US\$ 100 billion, estimated to grow at 10.8% to US\$ 168 billion by 2009. API manufacturing contributed 55% of the outsourcing pie, followed by clinical research (35%), drug discovery (25%) and dosage form development (20%).

Global pharmaceutical sales by region, 2006

World audited market	2006 sales (US\$ BN)	% global sales	% growth year-on-year (Constant US\$)
North America	289.9	47.7	8.0
Europe	181.8	29.9	4.8
Japan .	56.7	9.3	-0.7
Asia, Africa and Australia	52.0	8.5	9,8
Latin America	27.5	4.5	12.9
Total IMS Audited*	\$ 607.9	100	6.5

Source: IMS MIDAS®, MAT Dec 2006

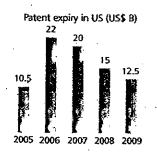
^{**} includes audited and unaudited markets

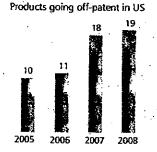


Global generic market
The global generics market is likely to
account for US\$ 36 billion in revenue by
2007-08. Globally, governments are
under pressure to reduce healthcare
costs and widen medicinal access even
as a robust demand growth is derived
from an ageing population, pressure on
global healthcare budgets, increasing
generics penetration (especially in some
EU and semi-regulated markets) and
patent expiries. Going forward,
favourable legislation in the area of
generics is expected to widen this
market segment.

US: This is the world's largest and most profitable generics market, accounting for at least 50% of the global generics sale and a larger profit share. The US opportunity can be gauged from the fact that generics applications submitted to US FDA increased 37% y-o-y from 563 in 2004 to 771 in 2005. Besides, US\$ 45-50 billion worth of products are likely to go off patent in the US by 2009. Even after factoring in generic price erosion, the potential market for generics players is likely to be worth a few billion dollars over the next three years. Cost competitive entrants from India are likely to maintain a pressure on US generics market. On the other hand, US regulations, like a banon authorized generics (if implemented), will strengthen the prospects of Indian generics players who focus on patent challenges. The US market also offers distinctive incentives in terms of

180-day exclusivities related to the Paragraph IV, first-to-file products and longer exclusivity periods of three to seven years for products deploying improved chemistry and / or enhanced formulations.





Source: Industry/analyst reports

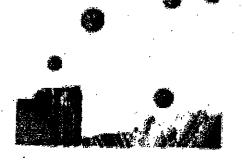
India enjoys favourable prospects in the US generics market. Nearly 15% of the total Indian pharma industry output accounts for generic exports to US. Besides, generic prescription trends indicate a greater room for growth. The implementation of Medicare Part D is expected to provide a thrust to generics sales, leading to an increase in prescriptions and revenues. In addition,

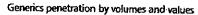
India, and in particular companies such as Orchid, are well-positioned to capitalize on the US opportunity in terms of niche generics (eg., Orchid's antibiotics range) and specialty pharmaceuticals range where the entry barriers (of technology and investment) are high.

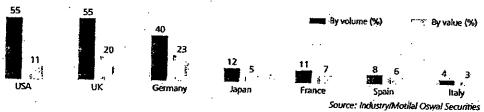
Europe: The penetration of generics is still low in a number of large pharmaceutical markets in Europe. Although France, Italy and Spain feature among the top 10 markets, the penetration of generics in these markets is still in single-digits. Western Europe will witness patent expiries worth about US\$ 6 billion by 2009, creating a multibillion dollar market even after factoring in generic price discounts and penetration. As more drugs go off patent on the continent, the respective governments are expected to enact favourable legislations to drive a generic-centric industry growth. What also makes this market attractive is the presence of a branded generics market in most European markets (except UK), resulting in relatively high entry barriers and lower price, discounting following patent expiry.

Other markets: The semi-regulated markets and smaller regulated markets are expected to grow by 25% by 2009. The opportunity spans 150 countries through Latin America, Asia, Eastern Europe, South Africa and Australia. Most of these are branded generics markets, resulting in attractive margins.

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Orchid's initiatives
Orchid has embarked on strategic
initiatives to meet the emerging global
market profile.

- + Focused on product differentiation in the US generics market, through a range of APIs and finished dosage forms in multiple therapeutic areas
- + Established API and dosage plants, which comply with US FDA and UK MHRA standards, and have secured necessary plant and product approvals
- + Entered into marketing alliances for antibiotics as well as non-antibiotics dosage forms with major pharmaceutical players in the US and Europe, strengthening its regulated market position
- + Implemented a niche generics model to benefit from a growing focus on specialty pharmaceuticals

Global drug discovery market: The drug discovery market generated revenues of US\$ 7.44 billion in 2006; this is likely to reach US\$ 19.35 billion in 2013 (Source: Frost & Suffivan, U.S. Drug Discovery Contract Research Organization Markets). However, successful R&D has been found to be

challenging even by big pharma companies with enhanced regulatory scrutiny, leading to time and cost increases and declining output. While R&D spending is rising, the number of new drugs approved is declining. Typically, a novel drug requires a development time of around 10 to 15 years and entails a development cost of around US\$ 800-1,000 million. According to industry reports, aggregate R&D spending by large pharmaceutical players has increased five-fold over the last 10 years but product approvals for small molecules have been around 25 in each of the last three years.

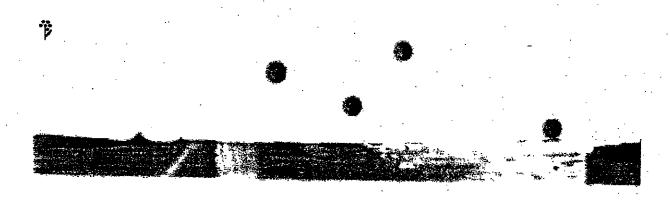
As a result, research outsourcing is now a reality with the objective to increase development capacity without increasing fixed costs, reducing rime-to-market and generating a superior performance with respect to time and quality offered by specialist discovery firms and contract organizations. The trend of global pharmaceutical players strengthening their NCE pipelines in alliance with niche drug discovery firms will only intensify further.

A globalization of clinical trials backed

by cross-border alliances will be yet another impetus to this development. Several CROs are expanding across geographical boundaries and augmenting their capacity. Along with the required expertise to manage complex global clinical trials across a variety of therapeutic segments, the availability of a full line of discovery and pre-clinical services will be a positive factor. These will catalyze the drug discovery outsourcing market. Besides, high efficiency and productivity of the firms offering such services will strengthen R&D outsourcing.

In the past, intellectual Property Right (IPR) concerns discouraged global pharma companies to outsource to Asia. However, with a number of Asian countries (including India) signing the TRIPS agreement, there is a fresh spurt in outsourcing to technologically advanced India and China, enhancing their potential to emerge as major R&D players.

Apart from the maximum number of low-cost, quality-enhancing FDAapproved plants, the key Indian advantages comprise superior development capability, analytical



setup, delivery consistency, cGMP compliance, long-term commitment, evolved judicial system, English-speaking population, dependable documentation and transparent commercials.

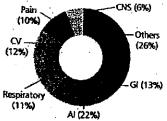
Orchid's initiatives
To participate in the challenging and growing drug discovery and development opportunity, Orchid took several proactive steps, comprising the following:

- + Engaged itself across the entire spectrum of pharmaceutical R&D from drug discovery to delivery
- + Created state-of-the-art drug discovery infrastructure that is end-toend connected, comprising bioinformatics, synthesis, scale-up, in vitro and in vivo microbiological, pharmacological screening, safety pharmacology and animal studies
- + Entered into collaboration agreements with multinational pharmaceutical companies for R&D services and put in place plans to outlicense new molecules with commercial potential
- + Filed over 440 patent applications with US PTO, PCT, European and Indian PTOs; of these, over 30% account for new drug discovery and other innovative products

- + Achieved a strength of more than 300 scientific personnel to cover the entire spectrum of R&D across 36 laboratories
- + Established its capabilities in generics chemistry and pharma research; several US FDA and UK MHRA-approved API and dosage form plants in various therapeutic areas vindicated scale-up for enhanced CMC activities of NCEs

Indian pharmaceutical market The Indian pharmaceutical market is one of the fastest growing in the world. It contributes over 10% in terms of volume and just over 1% in terms of value of total global sales. Sales increased by 17.5% to US\$ 7.3 billion in 2006 (IMS Health). The growth rate is expected to sustain at 6 to 7% annually leading to a market size of US\$ 10 billion by 2010 (McKinsey and IMS). The anti-infectives segment remains the largest in India, accounting for 22% of the market share.

Indian market by therapeutic category



Source: CRIS Ingac, ENAM Research

Orchid's initiatives

Orchid emerged as a mid-sized business domestic player, consistent with its predominant emphasis on an international presence. Apart from developing its antibiotic products in the Indian market as a critical care division, Orchid acquired a chronic therapy business to build divisions in the growing lifestyle disease segments of diabetes, cardio-vascular and central nervous system drugs.

Operational review

Revenues

Our total revenue (excluding excise duty) was Rs. 91,448 lakh for fiscal 2007, an increase of 5% from Rs. 87,478 lakh for fiscal 2006, attributed to a higher performance trajectory in the formulations business, propelled by our entry into the U.S. generics markets. In regulated markets we focused on the United States and Europe; in less regulated markets, we focused on China and Hong Kong. Since fiscal 2005, regulated market revenues also included development fees received from marketing arrangements.

With an increasing sales of finished dosage forms to regulated markets, our API sales are increasingly consolidated with our overall pharmaceutical sales. Accordingly, we report our business as one integrated pharmaceutical segment.

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Nevertheless, for the convenience of a comparison with our historical performance, we have classified our revenues according to two segments: APIs and formulations. The following table sets forth the contribution of each of these segments, expressed as a percentage of our total revenues, for fiscal 2006 and 2007:

	Fiscal year		
	2006	2007	
API revenues (%)	61	56	
Formulations	· .		
revenues (%)	39	44	
Total revenues (%)	100	100	

APIs: Our API revenues comprised sales of cephalosporins, high-end betalactams and other products, including nutraceuticals. In fiscal 2006 and 2007, our API revenues were Rs. 53,559 lakh and Rs. 51,213 lakh respectively, representing 61% and 56 % of our total revenues respectively. Exports constituted 82% and 81% of our API revenues in fiscal 2006 and 2007 respectively. Cephalosporins accounted for 89% and 88% of our API revenues in fiscal 2006 and 2007 respectively, while other product groups together accounted for the balance in each year.

High-end betalactam and carbapenem products, which are sold primarily in

less-regulated markets, represented 7% and 11% of our API revenues in fiscals 2006 and 2007 respectively. Niche nutraceuticals (SAMe and Biotin) were sold primarily in regulated markets in small volumes.

Formulations: Our total formulation revenues were Rs. 33,920 lakh and Rs. 40,234 lakh in fiscals 2006 and 2007 respectively, representing 39% and 44% of our total revenues, respectively. Arising from the entry into the US generic markets, our formulations business, which earlier focused on domestic and less regulated markets, turned around and drove incremental revenues and profits, a development, that is likely to continue. With our growth in regulated markets, we expect our formulations business to grow in revenue and profits.

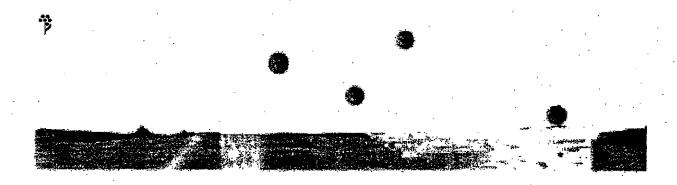
Our formulation revenues were largely driven by the sales of our generic cephalosporin products in the United States. From the date of launch in July 2005, our US cephalosporin sales stood at Rs. 22,759 lakh and Rs. 27,328 lakh in fiscals 2006 and 2007 respectively.

Our other formulations revenues comprised sales of acute therapy products (anti-infectives and pain management drugs) through our Orchid Healthcare division and chronic therapy products (neuro-psychiatry, cardio-vascular and anti-diabetic drugs)

and nutraceuticals through our Mano Pharma division from fiscal 2005.

Geographical distribution: During fiscals 2006 and 2007, the regulated markets of the United States, Europe and Japan contributed 29 % and 17% respectively of our total API revenues, while other less regulated markets including India contributed 71% and 83% respectively. During fiscals 2006 and 2007 each, the regulated markets of United States, Europe and Japan contributed 76% and 77% of our formulation revenues, while less regulated markets (including India) contributed 24% and 23% respectively.

Currently, we sell our APIs predominantly in a variety of export markets while our formulations are sold to a large extent in the United States. As we pursue our U.S. generics and broader regulated market strategy by selling key products whose patents are expected to expire each year, we expect to generate higher volumes of formulation sales in the export markets. We are selling our key injectable and oral generic products in the United States in alliances with our distribution partners. We plan to launch additional products progressively based on further approvals by the US FDA for our ANDAs. We will be pursuing a similar strategy for other product groups and other regulated markets.



The following tables set forth the geographical breakdown for sales of our products across various markets as a percentage of our total revenues for fiscals 2006 and 2007:

	APIs		Formulations	
	2006	2007	2006	2007
India (%)	18	19	18	18
Asia Pacific (other than India and Japan) (%)	33	42	2	Z-
Japan (%)	1	. 1	-	_
Europe (%)	18	16	1.	1
Middle East (%)	11	15	- 7	-
South/Central America (%)	6	- 5	-	
USA and Canada (%)	10	-	75	75
Russia and the CIS countries (%)	2	1	3	3
Rest of the world (%)	1	1	1	. 1.
Miscellaneous (%)		_		-
Total (%)	100	100	100	100

Expenses

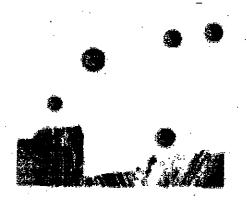
Our principal expense component comprised material costs, staff costs and welfare expenses, power and fuel costs, other manufacturing, selling and other expenses, R&D, interest and depreciation expenses. Given alongside is the breakdown of our various expense components.

Operating expenses

Our material costs comprised raw material costs used in the manufacture of products like Pen-G, 7-ACA and intermediates. Staff costs and welfare expenses comprised wages, salaries, bonus and welfare expenses for our employees such as contributions to employee provident fund, medical and other funds. Power and fuel expenses comprised power, diesel and furnace oil for our manufacturing facilities. The principal components of other manufacturing, selling and other expenses comprised selling commission, insurance charges, and factory maintenance expenses, consumption of

	Fiscal year		
	2006	2007	
Operating expenses:	(Rs. lakhs)	(Rs. lakhs)	
Material costs	36407	31056	
Staff costs and welfare expenses	7026	8399	
Power and fuel	4322 .	5202	
Other manufacturing selling and			
Other expenses	11001	13691	
Sub total	58756	58348	
R&D :	2662	3963	
Interest and finance charges	8701	9831	
Depreciation and miscellaneous expenses written off	8298	8247	
Taxes:			
Provision for current / fringe benefit tax	181	166	
Provision for deferred tax	590	1230	

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stores, spares and chemicals, and traveling expenses.

R&D expenses comprised capital and revenue items, which included regular operating expenses, project expenses and expenses for operation of research and infrastructure programs, R&D revenue expenses comprised power and fuel, consumption of stores, spares, chémicals and employee costs; R&D capital expenses comprised expenditure on land, buildings and laboratory equipment. While R&D revenue expenditures were debited to the profit and loss account when incurred, R&D capital expenditures were added to assets and depreciated. Interest and finance charges comprised interest on long-term and working capital borrowings, bill discounting and other bank charges. Depreciation and miscellaneous charges comprised a major portion of our operating expenses. Taxes included both direct and indirect taxes. The effective tax rates for fiscals 2006 and 2007 stood at 33,66%.

Material costs: Our material costs were Rs. 31,056 lakh for fiscal 2007 compared to Rs. 36,407 lakh for fiscal 2006. We were able to reduce material costs despite an increase in revenue due to an optimal efficiency in our operations, new cost-effective processes and a decline in the average price of key inputs.

Staff costs and welfare expenses: Our staff costs and welfare expenses were Rs. 8,399 lakh for fiscal 2007, compared to Rs. 7,026 lakh for fiscal 2006. This increase of 20% or Rs. 1,373 lakh in staff cost and welfare expenses was mainly attributable to an increase in our personnel to meet larger developmental activities and the establishment of new facilities.

Power and fuel costs: Our power and fuel expenses were Rs. 5,202 lakh for fiscal 2007 compared to Rs. 4,322 lakh for fiscal 2006. This increase of 20%, or Rs. 880 lakh, in our power and fuel expenses for fiscal 2007 was primarily due to the expension of commercial production across various plants to cater to the regulated markets as well as an increase in the input cost of fuel.

Other manufacturing, selling and other expenses: Other manufacturing, selling and other expenses were Rs. 13,691 lakh for fiscal 2007 as compared to Rs. 11,001 lakh for fiscal 2006. This increase of 25% or Rs. 2,690 lakh, in our manufacturing, selling and other expenses was attributed to the expansion of operations at our various new plants and general inflation.

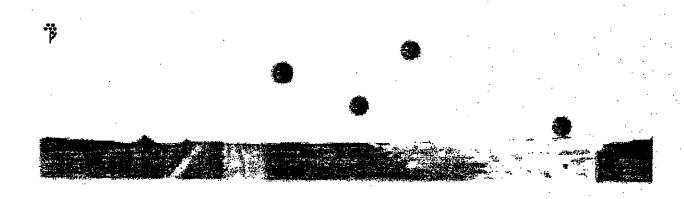
R&D: R&D expenses were Rs. 3,963 lakh for fiscal 2007 compared to Rs. 2,662 lakh for fiscal 2006. This increase of 49%, or Rs. 1,301 lakh, in R&D expenses was mainly attributable to the development of NPNC products for our regulated markets, and higher expenditure on drug discovery activities.

Operating profit (EBITDA): EBITDA was Rs. 29,137 lakh for fiscal 2007, compared to Rs. 26,060 lakh for fiscal 2006. This increase in EBITDA of 12%, or Rs. 3,077 lakh, was primarily due to higher margins arising from the rampup in the U.S. generics market.

Interest: Interest costs were Rs. 9,831 lakh for fiscal 2007 as compared to Rs. 8,701 lakh for fiscal 2006. This increase in interest costs of 13% or Rs. 1,129 lakh was mainly due to an increase in borrowings needed to complete our investments in the residual projects for the regulated markets and the increase in working capital. With the retiring of a significant amount of debt, interest expenses are expected to decline in fiscal 2008 and beyond.

Depreciation and amortization expenses: Depreciation was at Rs. 8,247 lakh for fiscal 2007 compared to Rs. 8,298 lakh for fiscal 2006.

Profit before taxation and exceptional items: Profit before taxation and exceptional items was Rs. 11,059 lakh for fiscal 2007 compared to Rs. 9,061 lakh for fiscal 2006. This increase of 22% or Rs. 1,998 lakh in our profit before taxation and exceptional items was mainly due to our entry into the



U.S. generics market, niche product mix and more efficient operations. Provision for taxation was Rs. 1,396 lakh in fiscal 2007 as against Rs. 771 lakh for fiscal 2006. This increase in the provision for tax was mainly due to a higher provisioning of deferred tax.

Profit after tax: Profit after tax was higher by 17% at Rs. 9,663 lakh for fiscal 2007 compared to Rs. 8,290 lakh for fiscal 2006. This increase was primarily due to our strengthening presence in the U.S. generics market.

Inventory: During the fiscal, the Company experienced an increase in inventory levels due to the larger and broader developmental effort for regulated markets in terms of API and dosage form exhibit batches for the products in the pipeline for US and EU. In addition, increasing regulated market business required the build-up of inventories in anticipation of product launches and product ramp-up. As more products get launched and supply chain optimized, the inventory norms

will be improved, going forward:

With the completion of asset creation for cephalosporin, betalactams and initial NPNC product groups and with the carbapenern and upscaled NPNC projects nearing completion, there will be a greater utilization of the asset base and improved asset turnover.

Internal control systems and their adequacy

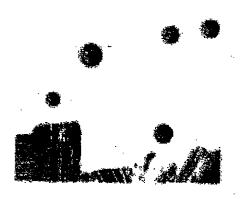
The Company introduced standard operating procedures (SOP) across all functions covering the daily operations of the business. To avoid work duplication, many SOPs were designed to meet the GMP/FDA/ISO/management and other statutory requirements. The Company continuously monitored compliance to procedures and introduced new systems from time to time. The introduction of an upgraded mySAP ECC 6.0 version of ERP in 2006-07 provided a uniformity and greater efficiency in practices across the organization.

The highlights of the internal control weaknesses and internal audit reports were placed before each audit committee meeting along with the recommendations and responses of the management. The members of the Board deliberated and advised the Management on improvements/ compliance. Apart from the above, statutory auditors also presented their concerns to the members for improvements or developments.

Additionally, the introduction of newer tools such as compliance calibrator, will provide greater thrust to other related aspects of risk management and prudential management.

Information technology
Orchid believes that information
technology (IT) is an important enabler
for pan-organization integration of all
activities, ensuring transaction
efficiency, integrity, transparence and
control. Orchid made businessstrengthening investments in

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information technology in 2006-07, leading to a wider, deeper and more secure information access.

Orchid's initiatives

- + Upgraded the SAP R/3 4.6 version to the latest mySAP ECC 6.0 version to achieve higher transaction productivity and integration
- + Introduced a top-of-the-class eCTD system to facilitate dossier submissions to regulatory authorities in US and Europe as per electronic format
- + Implemented electronic labeling solutions (vACT:SPL) to cater to the US and EU labeling requirements
- + Introduced a sophisticated software platform leading to cost-saving opportunities in solvent recovery processes with corresponding efficiency improvement
- + Introduced a software solution to enhance safety systems (vACT: SHE and PHA Works) to support incident management, proactive observation

process and hazard analysis addressing safety enhancement initiatives

- + Rolled out SAP in the wholly-owned drug discovery subsidiary, Orchid Research Laboratories Limited
- + Implemented the compliance calibrator from a reputed agency in the field (risk management software to identify and enforce appropriate segregation of duties in the transaction environment)

Benefits

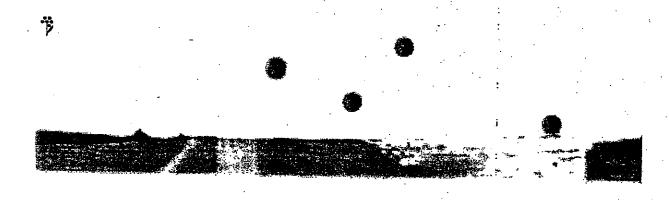
- The SAP upgradation, besides addressing the technical and support needs, helped in identification and resolution of bottlenecks in transaction processing
- + The hardware platform modernization resulted in a significant improvement in transaction speed
- + The solvent recovery software solution resulted in significant direct cost savings
- + Considerable improvement in

software and hardware uptime was achieved

+ GRC (governance, risk and compliance) focus was strengthened in line with Orchid's governance commitment

IT outlook

- + Orchid dovetailed its IT initiatives with its strategic vision and annual business plan
- + The Company is working on an intranet portal to create a knowledge repository and augment functional collaboration
- + Access by authorized users to information from any location will be considerably enhanced
- + A business information warehouse using SAP is being developed to facilitate better reporting and analysis
- + The external and internal security of the system will increase through the use of group policy implementation



- + An improved disaster recovery system and enhanced automation to back-up is being provided for additional protection to the business critical data
- + Information Technology will power more processes in the discovery-todelivery cycle this year

The wide range of IT upgradation and new software solutions, aimed at operational excellence on the one hand and international regulatory needs on the other, will reinforce Orchid's position in the global pharmaceutical space.

Human resources
As on March 31, 2007, Orchid's 3,200
plus strong team included scientific and
technical personnel and employees
located across several manufacturing
and research facilities including its joint
venture and subsidiaries, corporate,
managerial personnel and sales staff.

Orchid's initiatives

Recognizing the importance of talent in sustaining global competitiveness,

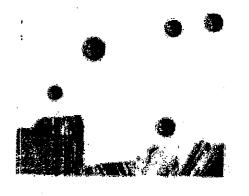
Orchid took the following steps in the human resources domain:

- + Increased its focus on behavioural and technical training across all segments to enhance employee competencies and improve performance
- + Developed themes for behavioural training resulting in need-specific training
- + Utilized business simulation programs to enhance analytical capabilities
- + Empowered managers and executives to take decisions supported by the allocation of budgets
- + Trained potential high-track performers in leadership skills through reputed HR consultancy organizations
- + Enabled scientific and technical employees to attend national and international seminars and share knowledge across teams
- Provided shop floor workmen with technical and chemical skill training

- + Formed a knowledge management cell, comprising teams from operations, quality and R&D divisions to discuss organizational best practices
- + Conducted employee welfare programs to enhance a sense of team spirit
- + Initiated intensive training in GMP, SOP, safety, environment and health consciousness

Opportunities and outlook As discussed in sufficient detail in the preceding sections, generics and drug discovery represent two significant business drivers with a number of opportunities in each for Orchid. Continuous growth of global pharmaceutical markets, increasing genericisation in regulated markets of US, Europe and Japan due to yearly patent expiries, the growth of emerging economies and the resulting upswing inhealthcare needs, necessitate the need for big pharma companies to actively integrate drug discovery outsourcing and in-licensing of new chemical

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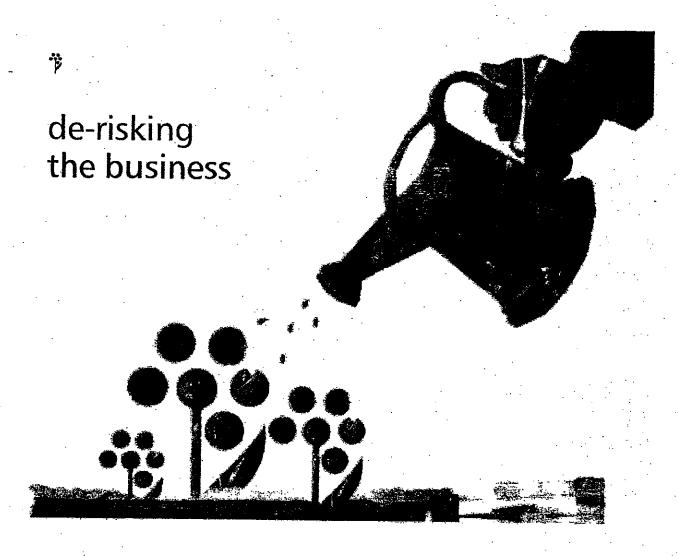
entities, representing major opportunities for Orchid.

Orchid has in place the requisite US FDA and UK MHRA approved multitherapeutic API and dosage form manufacturing infrastructure to harness the global opportunities. Building on the foundation of successful introduction and ramp-up of cephalosporin generics in the US over the last two years; the strategy for 2007-08 and beyond involves the introduction of additional cephalosporin, betalactam and carbapenem antibiotic dosage form products in the remunerative generic markets of US, Europe and Japan. Also, the first non-antibiotic generic dosage forms will be introduced in the US generics market this year, followed by further introductions across geographies. This accelerating generics thrust, supported by increased filings and approvals of ANDAs and dossiers, is expected to increase revenues and profits significantly. Orchid also sees opportunities for increasing business in

domestic and emerging markets to supplement the regulated market business in revenues.

Orchid's integrated drug discovery infrastructure and multi-therapeutic, multi-lead NCE development programs provide opportunities to benefit from global drug discovery and custom research and manufacturing partnerships. The out-licensing opportunity in the areas of diabetes, oncology and inflammation is promising for Orchid given the proof-of-concept trials for the anti-diabetic molecule currently underway and the envisaged progress of anti-inflammation and anti-cancer molecules towards Phase I human clinicals this fiscal.

On the overall, the business outlook for Orchid indicates higher revenues and profitability from the generics programs as well as long-term value building from drug discovery and CRAMS initiatives.



Overview

ORCHID OPERATES IN A BUSINESS ENVIRONMENT CHARACTERIZED BY INCREASING GLOBALIZATION, INTENSIFYING COMPETITION AND COMPLEX TECHNOLOGIES. AS A RESULT, RISK IS INTEGRAL TO ITS BUSINESS

The Company has responded to this reality with a comprehensive and integrated risk management framework, reinforcing its capability to enhance value.

What is risk?

Risk may be defined as the possibility that an event, anticipated or unanticipated, will occur and adversely affect the achievement of the Company's objectives and goals. A business risk is the threat that an event or action will adversely affect an

organization's ability to achieve its business objectives/targets. Business risk arises as much from the possibility that opportunities will not be realized as much from the fact that certain threats could well materialize and errors could be made, despite analysis and preemptive action.

What does risk management mean?

Risks accompany prospects. As a responsible management, it is our objective to minimize the risk inherent

in the business with a view to maximize returns from any business situation. At the heart of this risk management framework lies the Company's longstanding commitment to vigilance, appraisal and proactive risk mitigating strategies.

What we are doing to de-risk our business?

Enterprise risk management is a comprehensive process to help companies identify the major risks facing the organization and create



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consistent, enterprise-wide solutions for dealing with those risks. At the heart of the Company's risk mitigation is a comprehensive integrated risk management framework that comprises prudential norms, proactive management, structured reporting and systematic control. This approach ensures that the risk management discipline is centrally initiated by the senior management but cascaded across the organization, percolating to managers and executives at various levels, helping them anticipate and

mitigate risks at the basic transactional level.

At Orchid, decisions are taken in a manner whereby risk and reward are prudently balanced; this ensures that the Company's revenue generating initiatives are consistent with the risks taken. The management of risk conforms to the Company's strategic direction and is consistent with shareholders' expectations, the Company's rating and desired risk appetite.

The review that follows addresses the key risks that Orchid as a globally oriented pharmaceutical company faces and outlines the risk mitigation strategies that are adopted. While the risk mitigation strategies are structured and executed with due care and are vindicated by positive outcomes in each case, the Company can give no assurance that unforeseen developments and events will not have an adverse impact on the business operations and results.

Dependence on limited therapeutic segments Risk perception: Limited growth of current and planned products or an increase in product substitutes could reduce the demand for the Company's products.

De-risking: Historically, the Company has been in therapeutic segments (antibiotics) and that will remain relevant over the long-term. Antibiotics constitute around 25% of the pharmaceutical market, growing at an average of 4 to 5% annually. More importantly, the Company has strategically chosen to be in segments

that involve complex chemistry and processes, an effective entry deterrent for competition. As a proactive measure the Company has already implemented projects to increase its presence in other therapeutic segments as well over the coming months and years.

Vindication: The Company has achieved consistent growth over the years leading to 2006-07 at a dip which is among the fastest in the Indian pharmaceutical industry. The product range has also substantially expanded across therapeutic verticals thus diversifying the range and reducing the dependence on single groups.

Inadequate supply of raw materials Risk perception: Supply, quality and the cost of key inputs could impact

the cost of key inputs could impact product acceptance in regulated markets.

De-risking: The Company has long-term contracts with reputed suppliers of its key inputs (namely Pen-G and 7-ACA). It has been having such relationships with these vendors for the last several years. Following the Company's decision to increase its exposure in the regulated markets, it is sourcing materials from reputed US FDA-approved sources, eliminating the risk of product quality.

In addition, the Company carries out all necessary key checks across demanding parameters to ensure that the critical inputs meet the required specifications.

Vindication: Over the past several years, operations across the Company's units were not impacted at any point due to a paucity of key inputs. The Company maintained an anytime buffer to support continuous operations and deliveries. The successful launch and ramp-up in regulated markets validates the robustness of the Company's supply chain in meeting stringent needs of such markets as well.

Growing competition in the API and formulations businesses

Risk perception: Increasing global and domestic competition could lead to a pricing pressure.

De-risking: The Company selected to be present in those product segments requiring complex chemistry and formulation, deterring competition.

API: After having established itself globally in the cephalosponin segment, the Company has diversified presence to other challenging therapeutic segments with a large market (namely other antibiotics as well as non-antibiotics such as osteoporosis, central nervous system, oncology and cardiovascular drugs).

Formulations: The Company identified products with a long life-cycle requiring complex technologies and marked by a limited number of players. To strengthen its edge, the Company is introducing products on a continuous basis.

Vindication: On the overall, the Company has been able to increase its business and could more than double its formulations and regulated market business, reflecting the strength of its business model and product-manufacturing platform.

Patent litigation Risk perception: Allegation of patent infringement made by brand companies or third parties could lead to legal issues, an inability to enter regulated markets or lead to legal costs and

De-risking: The Company has anchored its generics strategy on patent noninfringing API processes and formulations. The Company filed several

damages.

process patent applications for its key products in leading regulated markets, minimizing the risk of patent infringement and where necessary formulation patents have also been filed.

Where Paragraph IV products or Paragraph IV products with first-to-file certifications are involved, we are required to challenge the innovator's products or processes on grounds of invalidity or non-infringement which we do on the basis of robust internal scientific analysis and external patent attorney opinions. Such product filings are made after due consideration of litigation risks and costs as well as business rewards. We also ensure that the share of such Paragraph IV and firstto-file products in the overall product basket does not exceed our internal prudential norms. As a general policy, we have not been launching products at risk. However, any such launch may be considered based on the robustness of our patent position and independent attomey opinion.

Vindication: Orchid's presence in regulated markets increased to 44% of the total revenue in 2006-07 and the regulated market business has not been

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affected on account of any legal issues so far.

Concentration on less regulated markets
Risk perception: The concentrated presence on less regulated markets, which are known for excessive competition, could impact realizations and profitability; on a larger canvas it could impact the Company's global visibility.

De-risking: Over the recent past, the Company has grown its presence in regulated markets. It has aggressively invested to emerge among the five largest cephalosporin manufacturers in the world. It invested over the last three years to expand and upgrade its facilities in line with international standards; these received approvals from regulatory authorities of these regulated markets. It has also tied up with leading global marketing partners for distributing its products.

Vindication: The Company has successfully diversified its product range in different geographies. Revenues from regulated markets more than doubled between 2004-05 and 2006-07.

The Company's drug discovery initiative may not succeed Risk perception: Drug discovery is inherently a long gestation, high risk-high reward activity globally. Even big pharma companies suffer drop-outs of their new chemical entities based on unanticipated pre-clinical and clinical results. A failure in the drug discovery initiative could impact the Company's anticipated revenues from the outlicensing of novel molecules and from the joint development of molecules with global pharmaceutical companies.

De-risking: The Company has set up subsidiaries and separate R&D centers dedicated for research in novel molecules. It has committed substantial resources in terms of funds (US\$ 40) million in the last three years), intellectual capital (over 130 research personnel) and equipment (best-inclass). As a result, we have been able to develop a number of NCEs across various therapeutic areas. In addition, the Company's objective of outlicensing a molecule after proof-ofconcept Phase II a studies provide a lower risk-free opportunity, compared to full-length post-Phase III development which would take many

more years and involve additional cost.

Vindication: The Company has been selected as the 'Partner of Choice for. Contract Research — Collaborative Drug Discovery by Frost & Sullivan, reflecting its basic competencies and strengths. A molecule from our US subsidiary (Bexel) has reached the Phase II human clinical stage in the anti-diabetes therapeutic segment. Two other molecules developed by the Indian subsidiary Orchid Research Laboratories (ORL) are moving towards Phase I clinicals. Select back-up molecules have also been developed.

Marketing is by and large outsourced or partnered Risk perception: The success of the Company's marketing efforts is dependent on partners and agencies. Marketing in regulated markets is based on strategic alliances with distribution partners while marketing in less regulated markets is dependent on agents.

De-risking: The Company's marketing tie-ups are strategically designed to supplement Orchid's development and manufacturing capabilities. While it has a network of branch offices, joint



venture partners and subsidiaries for marketing its products in some countries, it has entered into alliances with global pharmaceutical companies for marketing its products in regulated markets. All of these agreements for the US market are exclusive contracts. However, as these contracts are based on an ownership of ANDAs by Orchid and stipulate clear deliverables and market performance parameters for the distribution partner, Orchid has the ability to ensure fair performance. Also, the Company's product profile is of a kind that does not provide for too many diverse sourcing options, making it a win-win situation for both business partners. In markets such as EU, most alliances are non-exclusive with Orchid owning the dossiers and marketing authorizations providing the needed flexibility.

Vindication: Business from marketing tie-ups contributed to almost all the regulated market performance over the last three years leading to 2006-07. In certain cases, where the original distribution partner was bought over by another global pharmaceutical giant, the marketing alliance continued

undisturbed with the new ownership due to the care taken in product selection and the contractual obligations on the partner.

High leverage constrains future growth funding options
Risk perception: The Company's existing debt-equity ratio may constrain its ability to raise additional funds for future capex-oriented initiatives.

De-risking: The Company has invested substantial funds for growing its scale in established locations, setting up new capacities in other locations and in R&D facilities. All the investments required for the chosen businesses and product lines have been completed. While the recent past can be termed an assetbuilding phase, the present and future represent a phase where attractive returns will be generated. The entry into and ramp-up in the regulated markets with a portfolio of finished dosages is expected to increase cash flow. In November 2005 the Company raised US\$ 40.1 million of GDRs and US\$ 42.5 million of FCCBs while in February 2007 the Company raised US\$ 175 million of FCCBs, targeted to retire a substantial

part of its debt and reduce expensive interest outflow. Specifically, around 80% of the recent FCCB funds mobilized by the Company were deployed to retire high cost debt.

Vindication: The ability to raise GDRs and convertible bonds in global markets demonstrates the faith of the investors in the Company's business model, track record, prospects and sustainability. The conversion of a part of the earlier bonds into shares, the paring down of interest bearing debt and the potential for conversion of the balance bonds, in part or in full, indicate a more favourable debt-equity ratio going forward.

Ineffective management of operations

Risk perception: An inability to manage operations in a cost-effective manner could blunt the Company's competitive edge.

De-risking: The Company has embarked on a number of initiatives to ensure that its generics business remains costeffective. Its R&D and process development activities develop costeffective processes on a continuing basis. At the operational level, the Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 52 > 53



management reduced cycle time and improved the efficient utilization of resources (power and utilities). These initiatives translated into a strong cost-effective platform for the regulated markets.

Vindication: Manufacturing costs as a proportion of sales declined by 766 basis points over the previous year.

Hazardous chemicals and operations could prove dangerous

Risk perception: Pharmaceutical and chemical operations involve hazardous raw materials and processes which could endanger life and limb, and cause business interruptions.

De-risking: Safety is superordinate at Orchid. The Company has put in place sophisticated equipment and robust systems to ensure safety. The safety environment has been further enhanced by an alliance with DuPont to develop safety standards at par with the best in the world. Operational processes have been designed around safety considerations. The Company is among the few in India's pharmaceutical industry to create a safety mascot

(Tara), facilitating top-of-the-mind safety recall for each member of the Orchid team.

Vindication: Over the last three years, the Company invested significantly in safety initiatives. The Company remains committed to DuPont programs with further investments. Safety consciousness in the Company is at an all-time high.

Exchange rate fluctuation Risk perception: An adverse exchange rate fluctuation could hamper profitability

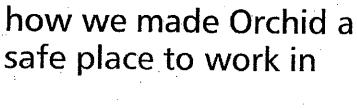
De-risking: The Company imports key raw materials, which act as a partial hedge. It also hedges a part of its net foreign exchange earnings based on a periodic cash flow, enabling it to minimize the impact of the rupee's strengthening. The emphasis on business expansion and cost management takes such adverse exchange fluctuations in its stride.

Vindication: The Company posted topline and bottomline increases during fiscal 2006-07 to enhance profitability to record levels.

People attrition could slow business growth Risk perception: In a knowledge-driven business, the loss of key executives could prove detrimental.

De-risking: Orchid provides a conducive environment for learning and growth. It empowers its employees to take informed decisions in their area of expertise. Moreover, the physical and emotional safety of employees and their families are looked after by the Company. The positive organizational ethos has resulted in the formation of strong teams, institutionalization of talent and continuity of knowledge development.

Vindication: Orchid's attrition rate is lower than the industry average. Orchid has been able to consistently develop business across newer horizons of knowledge.





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"Becoming safer is all about bringing about safe behaviour in our every day lives, whether professional or personal."

K Raghavendra Rao, Managing Director

Vision

Orchid is driven by the vision to become a world-class, safety-driven pharmaceutical organization by conducting its business processes and operations with commitment to the highest standards of safety, health and environment.

Orchid's safety vision is inspired by a succinctly-stated goal 'Zero Incident'.

Safety philosophy

Orchid believes any potential accident is the outcome of an incident, which did or could cause injury, property loss, environmental release, adverse community reaction or business interruption. Orchid emphasizes that all incidents should be reported and acted upon to minimize the possibility of mishap. Thanks to this broad definition, the Company formulated seven safety principles.

Organizational safety principles

Safety at Orchid is cascaded by the following seven principles:

- + Safety is a core organizational value
- + Management is responsible for preventing injuries
- + All injuries can be prevented and occupational exposures minimized
- + All incidents must be reported and acted upon
- + Working safely is a condition of employment and contract
- + Training employees in safety is essential
- + Safety makes good business

Initiatives

In August 2006, Orchid appointed international safety pioneers DuPont to

strengthen its safety management through the fundamental tenet that an organization's business processes and operations can be classified as technical or behavioural. Leveraging its decades of rich experience, DuPont identified 22 elements encompassing technical and behavioural aspects.

This 22-pronged approach remains the most comprehensive initiative to achieve a world-class safety environment. A network of Safety Committees with personnel drawn from all departments of the organization ensures a systematic improvement in the safety culture and its development as a core organizational value. Arising from this partnership, Orchid has incorporated safety initiatives which are unique to its field of operations; extending from infrastructure to philosophy and practices.





People structure initiatives

The Company invested in a number of organizational structures and initiatives:

+ Three-tier safety committees were formed – Central Safety Committee (CSC) and Departmental or Domain-based Sub-committees (SCs) as corporate bodies. The pulse of the organization is monitored by site teams at various locations

		Central Safety	y Committee		
Communication	High Slawlards	Housekeeping.	Salety Observation & Audres	Personnel Protective Equipment	incident Professionation
Ruler & Procedures	Process Safety Management – Antibiotics	Process Safety Management Non-auditionics	Contractor Safety	Emergency Response & Erisis Paymon	Training

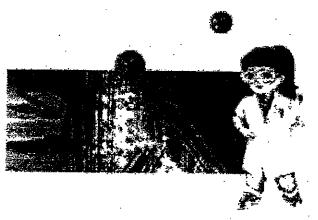
Health

The Orchidian value system requires that every employee is assured of the safety of his or her health at all times of his or her association with the Company — at the entry level, while working or in the midst of emergencies.

The Company's health-protecting initiatives comprise:

- + A comprehensive pre-employment medical test is performed with respect to each employee
- + Orchid's sites are equipped with round-the-clock doctors and nurses to look after employees' medical needs
- + Protective gear is provided to all employees to safeguard against health hazards while at work
- + Periodic annual medical check-up is conducted to monitor health and counsel employees for health specific information
- + An industrial social expert is always available to handle emotional needs
- + Summer camps are organized for periodic sessions, promoting wellbeing of employees and their families

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Tara – Orchid's face of safety
Tara was introduced to the members at Orchid in 2006-07,
reinforcing the concept of safety through the mascot of a cute,
innocent girl child. Tara reminds members to observe safety
while working in the plant as well as when driving or reaching
back home. Tara's acceptance was spontaneous across all
members at Orchid, appealing to their human emotion.

Environment

Orchid commenced operations from its Alathur plant inside an industrial estate. The management was aware of the absence of a facility to reuse treated waste water. In line with its environment-friendly values, the Company put in place a hightechnology, high-investment and firstof-its-kind system in India to recycle pharmaceutical effluents through ultrafiltration and reverse osmosis technologies, converting the effluents into high quality water suitable for use in utilities. The generated solid waste following the filtration process was sent to an evaporator for further recovery of: water as steam; the steam generated was reused for process heating in the plant. The complement of filtration. reverse osmosis and evaporation made the plant a zero-discharge unit.

Air

Orchid has recognized that control of emissions to air is as important as treatment of liquid effluents. Since inception Orchid installed state-of-theart equipment like the Vent Gas Condensation system to capture condensable emissions.

To reduce gaseous emissions following combustion in the boilers, the plant used special Dunphy burners, which provide an optimum mix of fuel and air for combustion. These possessed internal control mechanisms which direct the burner to reduce air inflow according to the needs of the boiler. The Oxygen Trim mechanism monitors the oxygen content in the flue gas and instantly provides feedback to optimize air inflow. As a result, Orchid's releases of oxides of sulphur and nitrogen, carbon dioxide and particulate matter were well within the relevant statutory standards

Energy conservation remains a core value at Orchid, not only for its economic advantages; every watt of energy saved was seen as an important contribution towards the reduction of greenhouse gases.

In 2006-07. Orchid was awarded the Energy Excellence Award by the CII, thanks to its energy-saving measures.

Solid waste management Bio-sludge from the aeration process of an industrial effluent treatment plant has been classified as hazardous waste by legislation. Orchid pioneered a unique bio-composting model that converted this bio-sludge into quality bio-compost. This model was evaluated and tested jointly with scientists at the University of Madras, and is now integral to Orchid's unique Environment Management System, acclaimed by Environmental Specialists of the World Bank,

Water conservation
At Orchid, the concept of 'zero
discharge' encouraged water
conservation at all plants. The Company
devised a unique method of roof-topmounted air cool condensers, enabling
the 10.5 MW power plant in Alathur to
operate without the use of water.

Moreover, the plant used refrigerant systems to cool volatile gases. To evacuate the heat generated by these systems, air condensers were used. Another conservation measure adopted by the Company comprised evaporative condensers, not entirely air-cooled or water-based, but using a fine spray of water, adequate for cooling purpose. This measure, compared to conventional methods, helped conserve 400,000 litres of water a day.



how Orchid is a socially responsible citizen

"As a responsible member of the society, we realize that we cannot alienate ourselves from the eco-system and have to give back to the world sustainability from our industrial and business operations."

K Raghavendra Rao, Managing Director



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Vision

An empowered neighbourhood through sustainable development programs for socially and economically vulnerable groups.

Mission
We care for our neighbours.

Overview

At Orchid, community development represents an extension of the Company's professional ethos.

Orchid's Tripartite Approach



The Company's community development agenda is derived from the belief that community benefits when industry, government and institutions work collaboratively.

Government: It has the mechanisms to receive and document the needs of society. It also has the legislative and administrative power to take forward

developmental programs.

industry (Orchid): It has the strength of technology and managerial skills required to identify solutions and execute projects in a time-bound manner.

NGOs and other institutions: They penetrate deep into the community to propagate ideas and act as a vibrant feedback mechanism.

Approach

Corporate India follows two community development approaches. One option followed by some companies involves pursuing a particular activity segment on a pan-Indian basis, addressing the social requirements of defined regions.

The second option focuses on all aspects of the neighbourhood community, gradually expanding the circle of involvement.

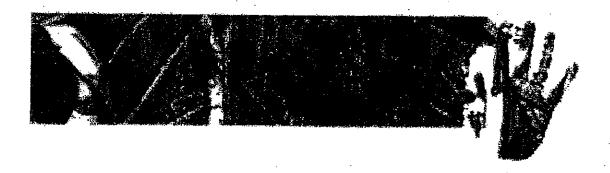
Orchid follows the second model.

Initiatives

The Company created the Orchid Trust in line with its commitment to enhance the quality of life for the neighbouring community. The focus has been on certain vital parameters which reduce vulnerability and enhance competencies of the socially under-privileged. The investments also focus on building infrastructure for sustainable development.

Education

- + Set up tuition centres helping students for better curriculum understanding
- + Provided supplementary teachers across several government schools facing faculty shortage, for knowledge dissemination
- + Provided teaching aids to schools including furniture, boards and other teaching tools
- + Provided career guidance for the youth, channelizing their energies into productive areas
- + Provided prize sponsorships for school events, best student and teacher awards
- + Conducted training and refresher courses for teachers, strengthening their teaching techniques
- + Provided special coaching for final year students of schools
- + Provided scholarships for poor and deserving students
- + Conducted talent/skill improvement programs for identifying and developing niche skill sets
- + Provided additional buildings/ furniture/electrification across various schools
- + Organized summer camps for school students



- + Sponsored school exposure programs
- + Developed the Bharat Scouts campus in Alathur, Tamil Nadu

Health

- + Organized weekly mobile health programs in Alathur and Pattipulam villages; benefited hundreds of villagers on a regular basis
- + Need-based special health camps comprising eye camps, paediatric camps and gynaecological camps were organized
- + Provided vehicles to facilitate hospitalization for the aged and the needy
- + Organized health education and awareness campaigns including care and nourishment of the new born and malaria awareness
- + Sponsored government health camps including pulse polio programs and general health camps
- + Conducted mother and child care training in coordination with ICDS

Women's development Orchid has accorded special importance to the development and empowerment

to the development and empowerment of women, recognizing their crucial role in shaping the family and society. Some of the steps taken comprised:

+ Credit and thrift society for providing financial support

- + Awareness education
- + Leadership training to meet the challenges of daily life
- + Formation of self help groups
- + Rural awareness camps
- + Registration of women's groups
- + Embroidery training for women in Palyanur
- + Job orders to supplement family income
- + Tailoring training for women in Thiruporur, Alathur and Pattipulam villages
- + Vermicompost training for the women

Youth development programs

- + Organized career guidance programs
- + Provided opportunities for entrepreneurship development through various programs and training sessions
- + Facilitated spoken English coaching, a key ingredient for a lucrative industry opportunity
- + Imparted leadership training taking up issues like the elimination of undesirable habits and providing basic facilities for villages
- + Coordinated community tuition centres

+ Enhanced youth employability; several trainees were employed in garment export units while members of youth started micro-enterprises

Community asset creation
The Company embarked on a number
of initiatives in supplementing the
existing village infrastructure with
additional assets.

Besides, the Company embarked on the following intiatives:

- + Organized veterinary camps for farmers
- + Organized awareness programs for fishermen communities
- + Organized rural awareness camps
- + Sponsored the distribution of newspapers in the villages

Orchid has always believed that enhancing the social well being of individuals would add a lot more meaning to its overall business existence. Caring for the people and the community has therefore been an important facet of its business philosophy. Orchid is happy that through the several initiatives and programs undertaken it has influenced the lives of several people in the vicinity of its facilities.

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board of directors

Shri R Narayanan, Chairman

Shri K Raghavendra Rao, Managing Director

Dr C Bhaktavatsala Rao, Deputy Managing Director

Directors

Dr M R Girinath

Dr ! Seetharam Naidu

Shri Deepak Vaidya

Shri-Subramanian Andi (IDBI Nominee)

Dr Anzaghi Piergiorgio

Shri Anil Thadani

Dr Bishwajit Nag

Management Team

Shri D S Bhaskara Raju, President - Finance & Business Planning

Dr Gautam Kurnar Das, President - Active Pharmaceutical Ingredients

Shri Chandan Kumar, Senior Vice President – Manufacturing (Active Pharmaceutical Ingredients)

Ms Edna Braganza, Senior Vice President – International Marketing & Procurement

Shri Kalidindi V Raju, Senior Vice President - Manufacturina

Shri S Mani, Senior Vice President - Manufacturing & CSR

Shri Ashutosh Ojha, Country Head (Domestic Formulations)

Shri L Chandrasekar, Vice President - Internal Audit & Co. Secretary

Shri P N Deshpande, Vice President - Production & Technical

Shri C R Dwarakanath, Vice President -- Corporate Safety, Health & Fortimement

Shri Imtiyaz Basade, Vice President - Regulatory Affairs

Shri S Krishnan, Vice President - Finance

Dr S Mahender Rao, Vice President - Chemical Development

Dr P Y Naidu, Vice President - Analytical Research & Quality Control

Shri S Nammalvar, Vice President - Projects & Engineering Services

Shri V S Padalkar, vice President -- Projects & Maintenance

Shri K C Pathak, Vice President - PPIC & Outsourcing

Dr Praveen Reddy, Head - Pharma Research

Dr Rajiv Desai, Vice President - Analytical RaiD and Quality Control

Shri K Ramesh, Vice President - Analytical Development

Shri M S Rangesh, Vice President - Human Resources

Dr Sanjiv Sharma, vice President - Regulatory Affairs & Quality Assurance

Shri Satish Haribhau Joshi, Vice President - Quality Assurance

Dr UP Senthii Kumar, Vice President - Chemical Development

Shri S Sridharan, Vice President - Information Technology

Shri A Suresh Babu, Head - Corporate Affairs

Bankers

Allahabad Bank

Bank of Baroda

Bank of India

Canara Bank

Federal Bank ICICI Bank Ltd

IDBI Limited

Indian Bank

Punjab National Bank

State Bank of India

Syndicate Bank

Union Bank of India

Auditors

Statutory Auditors

SNB Associates

Chartered Accountants

No. 12, 3rd Floor, Gemini Parsn Complex

121, Anna Salai, Chennai 600 006

Tamil Nadu, India

Cost Auditors

Shri V Kalyanaraman

Cost Accountant

No. 4 (Old No. 12), Second Street, North Gopalapuram

Chennai 600 086, Tamil Nadu, India



directors' report



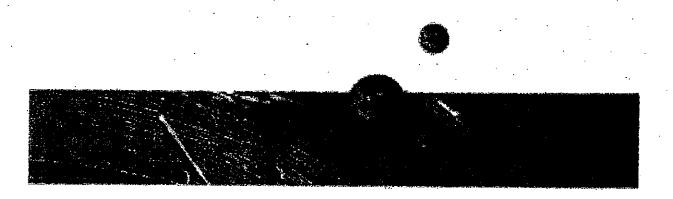
Your Directors have pleasure in presenting the 15th Annual Report of your Company along with the audited statement of accounts for the financial year ended March 31, 2007. The Report also includes the Management's Discussion and Analysis Report in accordance with the guidelines on Corporate Governance and the consolidated financial statements.

The highlights of the financial results for 2006-07 are given below:

(Rs. Lakhs)

Particulars	Year ended March 31, 2007	Year ended March 31, 2006
Sales and operating income (Gross)	93417.55	88876,64
. Other income	155.98	132.73
Total expenditure	64436:97	62949.31
Gross profit	29136.56	26060.06
Interest and finance charges	9830.65	8701.32
Gross profit after interest but before depreciation and taxation	19305.91	17358.74
Depreciation	8246.73	8297.57
Profit before tax	11059.18	9061.17
Provision for taxation		
- Deferred tax	1230.00	590.00
– Fringe benefit tax	166.00	181.00
Profit after tax	9663.18	8290.17
Add: Surplus brought forward	4519.18	2748.36
Surplus available	14182.36	11038.53
Appropriations:		
- Transfer to general reserve	7000.00	4000.00
- Excess provision of dividend for earlier year written back	(268.09)	
– Dividend	2940.54	. 2209.47
- Tax on distributed profits	499.74	309.88
Balance carried to balance sheet	4010,17	4519.18

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Performance

During the year under review your Company achieved a turnover and operating income of Rs. 934.17 crore compared to Rs. 888.76 crore in 2005-06, registering a 5% increase; gross profit before providing for interest, depreciation and taxes in 2006-07 stood at Rs. 291.36 crore compared to Rs. 260.60 crore in the previous fiscal, registering a 12% increase.

After providing for interest of Rs. 98,30 crore (Rs. 87.01 crore previous fiscal) and depreciation of Rs. 82.46 crore (Rs. 82.98 crore previous fiscal), the profit before tax of the Company was Rs. 110.59 crore, compared to the previous year's profit before tax of Rs. 90.61 crore, registering a 22% increase. Net profit after tax stood at Rs. 96.63 crore, compared to Rs. 82.90 crore in the previous fiscal, registering a 17% increase.

Your Company operates in the single segment of pharmaceuticals business with an increasing quantum of active pharmaceutical ingredients being sold as finished dosage forms, especially in the regulated markets, which are contributing to an increasing share of our business turnover. From an operational

viewpoint, some of the trends are presented below, in respect of these two product groups.

Active Pharmaceutical Ingredients (API) Business

Orchid continued to maintain its strong position in the global cephalosporin. markets. The net sale of all Active Pharmaceutical Ingredients (APIs) during 2006-07 was Rs. 497.71 crore compared to Rs. 498.27 crore in 2005-06; sale of oral APIs accounted for Rs. 365.59 crore (Rs. 337.01 crore previous fiscal) and sterile APIs stood at Rs. 132.12 crore (Rs. 161.26 crore in 2005-06). The Company sold 764 MT of APIs and intermediate products during the year under review, compared to 713 MT during the previous fiscal. During the year, a significant quantity of APIs has gone into development of formulations for the US business as part of the Company's forward integration strategy.

During the year under review, the betalactam API facility located in Aurangabad, Maharashtra has been approved by the UK regulator, Medicines and Healthcare products Regulatory Agency (MHRA). The API facility also underwent a US FDA inspection

successfully. The NPNC API facility in Aurangabad also underwent a successful US FDA inspection.

Formulations business

The turnover of the formulations business was Rs. 376.68 crore during the fiscal, compared to Rs. 323.22 crore in 2005-06. Our formulations business has been buoyant due to our foray and ramp-up in the US generics markets. Orchid continues to hold a niche position in the cephalosporin generics market in the US; entry into the US regulated market will be supplemented with European foray in fiscal 2007-08. During the fiscal, approvals were received from UK MHRA for the oral and sterile cephalosporin dosage form facilities as well as the sterile betalactum vial lyophilisation (dosage form) facility.

Efforts have been made during the fiscal to consolidate and expand the formulations business in less regulated markets. Progress has been achieved in large key markets such as Russia and CIS. The Company is working on diversified growth opportunities in the domestic market across four therapeutic areas (viz. antibiotics, anti-diabetes, cardiovascular and neuro-psychiatry medicines) to



reinforce growth. The consolidated performance of all the four divisions of the domestic formulations segment has grown by 24% compared to the previous financial year to Rs. 76.91 crore.

Dividend

Your Directors recommend a 30% dividend (Rs. 3.00 per equity share of Rs. 10/- each) for the year ended March 31, 2007 subject to the approval of shareholders in the ensuing Annual General Meeting. Under the income Tax Act, 1961, the receipt of dividend is tax-free in the hands of the shareholders.

Regulatory filings and approvals Your Company achieved significant progress in the filing of DMFs (Drug Master Files) and ANDAs (Abbreviated New Drug Applications). Your Company has till date filed 46 US DMFs and 40 ANDAs to support its US generics thrust. With 18 ANDAs for cephalosporin products already approved, the Company has the highest approval record in the antibiotics space.

Your Company continued its ANDA filing activities in the recently entered non-penicillin, non-cephalosporin space; 13 DMFs and 7 ANDAs were filed in the NPNC space and several products are under various stages of API and formulation development. With further

filings, Orchid expects to significantly increase its total filing count in the NPNC space.

As of date, Orchid has filed 12 dossiers (five injections and seven oral products) in EU with UK as reference member state under the Mutual Recognition Procedure (MRP) route for most of the filings.

Collaboration

During the year, your Company signed a major pan-European collaboration with Actavis, a global top-ranking generics firm, to market nine of Orchid's key cephalosporin products across EU and CEE regions. While Orchid will license the dossiers and support Actavis with product supplies on a non-exclusive basis, Actavis will source all of its product requirements on Orchid exclusively. More country-wise collaboration opportunities are being pursued for the rapidly expanding product pipeline.

Research and Development

Your Company's drug discovery activities are channelled under its wholly owned subsidiaries in India and US-Orchid Research Laboratories Limited (ORLL) and Bexel Pharmaceuticals respectively. The discovery pipeline includes New Chemical Entities (NCEs) in the fields of oncology, inflammation, anti-infectives, diabetes,

obesity and depression. These are in various stages of pre-clinical, regulatory too and human clinical development.

During the year under review, ORLL entered into a contract with Biovitrum AB (Publ) to undertake medicinal chemistry work to support certain of its drug discovery activities. Biovitrum is an integrated biopharma company with a broad drug discovery research portfolio, headquartered in Sweden, Europe. Orchid considers this tie-up as yet another validation of its ability to offer world-class drug discovery services to reputed clients around the globe.

Simultaneously, the projects with Pfizer for NCE development in the animal health field are proceeding well. A beginning was also made in their human health field with certain projects. Efforts are on to enter into selective alliances with reputed partners in the Custom Research and Manufacturing Services (CRAMS) field. Orchid's industrial scale API and dosage form facilities provide an extended value proposition for undertaking CRAMS projects as end-to-end discovery to delivery solutions by the Company.

Intellectual property

During the year, Orchid continued to accelerate the IPR work on a number of

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products. The total number of patent applications filed by Orchid in various national and international patent offices during the financial year 2006-07 was 94, taking the cumulative count to 422 (process, formulation, NCE, biotech and nanotech). As of March 31, 2007, 140 patent applications have been published while 46 patents have been granted cumulatively.

Outlook

Orchid is poised to generate enhanced revenues and profitability during the current year with further broadening and deepening of its regulated market generics business. Key product approvals for the US generics markets are expected in the US. The successful inspection of the NPNC API facility and the betalactum API facility by US FDA and the related reviews and anticipated approvals of ANDAs pave the way for commercial production of respective APIs and dosage forms for the regulative markets. In particular, the likely dossier approvals and filings coupled with the UK MHRA approvals for cephalosporin and betalactam dosage form facilities would start generating remunerative generic business in Europe from the second half of 2007-08 for these products.

The current fiscal would also see the launch of first wave of non-antibiotic

products by Orchid based on expected ANDA approvals. Orchid has a large number of products in the areas of cardiovascular, neuro-psychiatry, anti-diabetes, osteoporosis and pain management segments for development and launch in US and Europe based on product registrations and approvals.

In terms of long term value building, the drug discovery efforts would continue to move the development pipeline forward towards human clinicals. The efforts in the areas of custom research and manufacture would also result in additional projects.

Long-term resources

FCCBs

During February 2007, your Company raised US\$ 175 million from the international markets through the issue of Foreign Currency Convertible Bonds (FCCBs). The zero-coupon convertible bonds have a tenor of five years and are convertible into equity shares at an initial conversion price of Rs. 348.335. The bonds are listed on the Singapore Stock Exchange. The proceeds of the issue have been utilized for repayment of debt to a significant extent. Other uses pertain to acceleration of your Company's efforts to grow its business into regulated markets through enhanced product development and regulatory filings, and strengthening

of its overseas marketing and distribution infrastructure.

Out of the US\$ 42.50 million raised by way of convertible bonds during 2005-06, FCCBs amounting to US\$ 22.79 million have been so far converted into equity shares. 42,00,903 equity shares of the Company have been issued upon conversion of the FCCBs. Pursuant to the conversions, as of March 31, 2007, US\$ 19.71 million FCCBs are outstanding. All the outstanding 9,250,000 GDRs issued and listed, have been converted into equity shares of the Company, by the GDR holders.

Issue of warrants

Out of the total warrants issued to Promoter / Promoter Group(s) in August 2005, 35,95,000 warrants were outstanding as on March 31, 2006. Of these, 35,000 warrants were converted during the year. The balance portion of the warrants amounting to 35,60,000 were not converted within the stipulated period. Hence the 10% advance paid by the allottees amounting to Rs. 805.54 lakhs on the unexercised warrants was forfeited.

In terms of the resolution passed by the shareholders at an Extra-ordinary general meeting held on February 14, 2007, 50,00,000 warrants were allotted to the Promoter / Promoter Group(s) on



March 01, 2007. These warrants are eligible for conversion at the option of the Warrant holders, into equity shares of the Company at a price of Rs. 202.58 per share within a period of 18 months of the date of allotment. The Company received from the allottees of warrants, an amount of Rs. 1012.90 lakhs equivalent to 10% of the total consideration.

Employees stock option plan For the 3,00,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered re-pricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a re-pricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006. This variation requires the consent of the shareholders and a resolution seeking this change is proposed before the shareholders for approval.

In terms of the resolution passed by the Company at the Extra-ordinary general meeting held on April 10, 2005, 6,10,000 options were allotted on August 12, 2006 to the eligible Directors and employees as per the scheme formulated under 'ORCHID-ESOP 2005'

by the Compensation Committee of the Board of Directors. Each option is convertible into one equity share of Rs. 10.00 each at a price of Rs. 193.25 per share including premium. The details of the options granted to employees and the status of such options as on March 31, 2007 are given in Annexure VI to this report.

Pursuant to exercise of options by the employees under the different tranches as applicable, 11,040 equity shares of Rs. 10/- each were issued during the year. The details of options granted to employees and the status of such options as on March 31, 2007 are given in Annexure VI to this Report.

A stock option plan viz. Orchid – ESOP 2007 has been formulated for allotment of shares to the employees of Subsidiary Companies either working in India or overseas or a Director of the Company whether executive or non-executive Director but excluding the Promoter Directors.

Under the said scheme 5,00,000 options (five lakhs only) are proposed to be granted to the employees of Subsidiaries from time to time in one or more tranches, each option convertible into equity share with nominal value of Rs. 10/- each.

As per the amended SEBI (ESOS & ESPS) Guidelines, 1999 a separate approval is required to be obtained from the members for grant of stock options to the employees of the Subsidiary Companies. A resolution seeking the approval is placed before the shareholders.

Listing of equity shares

Your Company's equity shares are presently listed on the National Stock Exchange of India Limited (NSE), Bombay Stock Exchange Limited (BSE) and the Madras Stock Exchange Limited (MSE). The Company has got listing approval from the above stock exchanges for the listing of 11,98,109 equity shares issued during the year. The convertible bonds issued during 2005-06 are listed on the Luxembourg Stock Exchange and the London Stock Exchange. The convertible bonds issued during February 2007 by the Company are listed on the Singapore Stock Exchange.

Overseas joint ventures

NCPC Orchid Pharmaceuticals Company Limited, China: Your Company's 50:50 joint venture in China, NCPC Orchid Pharmaceuticals established for manufacture of sterile cephalosporin APIs has been progressing well. During the year under review, NCPC-Orchid Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 66 > 67

recorded a turnover of US\$ 31.10 million. The JV is planning to enhance its presence and market share further in the current year.

Biotechnological Chemical Development Limited — United Kingdom: The joint venture was set up as a limited time horizon project to develop and assimilate select peptide technologies. Your Company has taken steps for dissolution of the JV Company and has made the necessary application before the UK registry authorities. Your Company has also transferred the IP and assets of the JV to India.

Subsidiaries

Orchid Research Laboratories Limited, India (ORLL): ORLL has been developing its NCE pipeline in the fields of oncology, inflammation and anti-infectives aggressively. ORLL has been conducting extensive pre-clinical studies of the lead molecules, in the chosen therapeutic areas. ORLL has also been providing extensive medicinal chemistry and biology support to its front-end US subsidiary, Bexel Pharmaceuticals Inc in the areas of diabetes, obesity and depression.

Bexel Pharmaceuticals Inc. – USA (Bexel): Bexel has been focusing on drug discovery research in metabolic diseases. (such as diabetes, obesity and auto-

immune diseases). Bexel's anti-diabetes molecule BLX-1002 has progressed the most among these, having completed Phase I safety and tolerability studies in healthy human volunteers as well as safety and tolerability studies in diabetic patients. A Phase II (a) human clinical trial in Europe is currently underway.

To consolidate its drug discovery research under a common umbrella, Orchid reached an understanding with Bexel and its US promoters by which the Company extended its ownership in Bexel to 100% during the fiscal under review. This move supports a seamless integration of the several drug discovery programmes being pursued at Orchid and Bexel while retaining the advantages of having a discovery front-end in the US and a discovery-cum developmental back-end at Orchid, Chennai. The shareholding of the US founders of Bexel Pharmaceuticals was bought out by Orchid for a cash consideration of US\$ 3 million. The managerial and scientific organization of Bexel will continue to be an integral part of the new structure, providing continuity and commitment to Orchid's broader drug discovery thrust.

Orchid Europe Limited - United Kingdom: Your Company's wholly owned subsidiary Orchid Nutricare limited was renamed as Orchid Europe Limited considering the future course of business activities. The future business of Orchid Europe would be in terms of pharmaceutical generics. The entity is already active in the field of generics registrations and in identifying business partnerships.

Ogna Farma – Brazil: To leverage its presence in the large and fast market for cephalosporin, your Company has established a subsidiary in Brazil to cater to the product registration and marketing requirements. The Company has submitted applications to the Brazilian regulatory authorities for inspection of the injectable formulation facilities in Irungattukottai.

Gene Arrays Inc. – USA: Upon the development of the three cDNA libraries, the libraries and certain equipment bought with the funding provided by Orchid have been transferred to Orchid's R&D. Pursuant to a termination agreement signed, the Company is in the process of closing the subsidiary.

Orchid Pharmaceuticals Inc. – USA: Your Company established Orchid Pharmaceuticals Inc. in the Delaware State of USA as a 100% subsidiary company. The Company would help provide identified services to Orchid in the areas of business development and logistical co-ordination in the US.

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Orchid Pharmaceuticals (South Africa)
Pty Ltd - South Africa: During the year,
Orchid Pharmaceuticals (South Africa) Pty
Ltd was incorporated as a wholly owned
subsidiary of your Company in South
Africa to market bulk drugs and
formulations.

Your Company has received an approval under Section 212 (8) of the Companies Act, 1956 from the Department of Company Affairs, Ministry of Finance vide letter No: 47/101/2007-CL-III dated March 28, 2007 exempting the Company from attaching the annual report of subsidiary companies with the Annual Report of Orchid and to provide the accounts in the same manner as certified by overseas auditors in the respective countries where the subsidiaries are situated. The statement as required under the said approval is given as part of this report.

The consolidated financial statements of the subsidiaries duly audited are presented along with the accounts of your Company. The annual accounts of subsidiary companies are kept at the Company's registered office and also at the respective registered office of the subsidiaries for inspection and shall be made available to the members seeking such information.

Fixed deposit

The Company has not accepted any fixed deposits and as such, no amount of principal or interest was outstanding as of the balance sheet date.

Directors' Responsibility Statement

In accordance with the provisions of Section 217 (2AA) of the Companies Act, 1956, your Directors confirm:

- That in the preparation of the annual accounts for 2006-07 the applicable accounting standards were followed along with proper explanation relating to material departures, if any.
- That the Directors selected such accounting policies and applied them consistently and made judgments and estimates that were reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year (March 31, 2007) and of the profit or loss of the Company for that period (2006-07).
- That the Directors took proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities.

• That the Directors prepared the annual accounts for 2006-07 on a going concern basis.

Safety excellence journey
Orchid has been committed to high
standards of safety since inception.
Orchid embarked on a project called
Safety Excellence Journey covering all
locations. The arrangement with DuPont
who are the acclaimed global leader in
safety, will enable Orchid to reach worldclass standards in safety performance.

As part of improving the process safety management several scientists and engineers were trained in Process Hazard Analysis (PHA). This team works on hazard analysis at various stages of new products development from lab scale to plant scale. The cross-functional teams trained in PHA play a very important role in the entire process hazard management; groups of operating executives / managers were also trained in process safety and risk management.

Additional training modules cover the areas of incident investigation and contractor safety management. Simultaneously the implementation of various recommendations will continue under the guidance of DuPont as per the project plan for achieving excellence in safety.

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Conservation of energy

Your Company has always been striving hard in the field of energy conservation. Several measures to conserve energy and to reduce associated costs were taken. Particulars in respect of conservation of energy as required under Section 217 (1) (e) of the Companies Act, 1956, are given in Annexure I to this report.

Foreign collaboration

The particulars in respect of R&D/Technology absorption as required under Section 217 (1)(e) of the Companies Act, 1956, are given in Annexure II to this Report.

Foreign exchange earnings and outgo

The particulars in respect of Foreign Exchange Earnings and Outgo as required under Section 217 (1)(e) of the Companies Act, 1956, are given in Annexure III to this Report.

Particulars of employees

There was an industrial unrest created by a section of the workers at the Company's API Plant in Chennai demanding increase in wages & benefits. The Company is working closely with the authorities and relevant Government departments to resolve the issues

Information as per Section 217(2A) of

the Companies Act, 1956 read with Companies (Particulars of Employees) Rules, 1975 forms part of this Report and is given in Annexure IV to this Report.

Corporate Governance

The spirit of good Corporate Governance remains integral to the Company's corporate philosophy. It follows the code of Corporate Governance issued by the stock exchanges for listed companies. For 2006-07 all information relating to Corporate Governance is given in Annexure V to this Report. A compliance certificate from the Statutory auditors is appended to this report. General Shareholders Information is given in Annexure VII to this report.

Directors

Resignation of Dr. Francis Pinto
Dr. Francis Pinto who has been a Director
of Orchid since July 2003 resigned from
the Board during August 2006. The
Board places on record its appreciation
for the contributions made by Dr. Francis
Pinto as Director.

Retirement of Directors by rotation In accordance with the provisions of the Companies Act, 1956, and the Articles of Association of the Company, Dr. Anzaghi Piergiorgio and Dr. M R Girinath retireby rotation at the ensuing Annual General Meeting and being eligible offer themselves for re-appointment.

Appointment of Shri Anil Thadani as a Director

The Board appointed Shri Anil Thadani as a Director, to fill a casual vacancy. In accordance with Section 262 of the Companies Act, Shri Anil Thadani shall hold office till the outgoing director would have held office. Accordingly, Shri Anil Thadani's office gets vacated at the ensuing AGM. A resolution seeking his appointment as Director is being placed before the shareholders for approval.

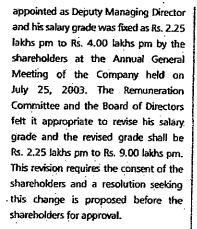
Re-appointment of Shri K Raghavendra Rao as Managing Director

The five-year tenure of Shri K Raghavendra Rao would be coming to an end on June 30, 2007 and your Directors felt it appropriate to re-appoint him for a further period of 5 years with effect from July 01, 2007. The necessary resolution seeking the re-appointment of Shri K Raghavendra Rao as Managing Director of the Company and payment of remuneration to him has been included as an item in the notice of Annual General Meeting.

Revision of salary grade of Dr C Bhaktavatsala Rao, Deputy Managing Director

Dr C Bhakatavatsala Rao was re-





Auditors

The existing Statutory Auditors, Mys SNB Associates, Chartered Accountants retire at the forthcoming Annual General Meeting, and being eligible, offer themselves for re-appointment.

Cost Audit

The Central Government has prescribed that an audit of the cost accounts maintained by the Company in respect of bulk drugs and formulations be conducted under Section 2338 of the Companies Act, 1956. Consequently, your Company has appointed Shri V Kalyanaraman, B.Sc., FICWA, as Cost Auditor for 2006-07, with the consent of the Central Government, for the audit of cost accounts maintained by the Company in respect of both bulk drugs and formulations.

Acknowledgments

Your Directors are thankful to Bank of India, Industrial Development Bank of India, Industrial Development Bank of India, ICICI Bank Limited, Indian Bank, Union Bank of India, Allahabad Bank, Canara Bank, Punjab National Bank, Bank of Baroda and other public sector and private sector banks and institutions for meeting long term and working capital needs of the Company's expanding operations and also to the holders of FCCB for their support.

The Directors are grateful to the Central and State Governments and the Central DCGI and State FDAs for their continued support to the Company's expansion

plans. Your Board places on record its appreciation of the support provided by the customers, suppliers and equipment vendors to the Company. Your Directors are also thankful to the vendors, distributors and agents for their continued support.

Your Directors are thankful to the esteemed shareholders for their support and encouragement, enabling the Company to venture into various projects and develop its global business successfully. The Directors acknowledge the commitment and contribution of all employees to the growth of the Company.

For and on behalf of the Board

Place: Chennai Date: May 3, 2007 R Narayanan Chairman Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 70 > 71

Statement pursuant to Section 212 of the Companies Act, 1956, relating to subsidiary companies

\$ No	Particulars	Oreh a	Surope	Cgra	Farma	Gene A	rays inc.	Orc	id	Eq	e.	Co	1	Orc	hid
		Lim	ited	plstri	cuicea	9	A2	Pharmac	euticais	Pharmar	euticals	Pharmace	uticols	Pase	arch
		(former)	y Orchid	11100	rtacao	;		inc.	USA	irc.,	USA	SA (Propr	eitary)	Labor:	itories
•		Nutricare	Cimited),	Ехра	rtacao	!						Limit	ೇ ಡೆ	Cd.,	ledia
		United r	Grigdom	Assesso	eta Ltda,	}						South A	línca		
		ì		₿ſ	azil										
	Financial year of the	April –	March	Jan	– Dec	April -	March	Jan-	Dec	Jan	Dec	March -	Feb	April ~	March
	Subsidiary			j				ĺ		ì		Ì			
		£	Rs takhs	Erazlian	Rs	3	Rs lakhs	\$	Rs.	S	Rs lakfis	ş. A.	P.s	Rs	Ratikha
				Relas R\$	takns				lakhs			Rand	lekhs		
1.	Capital	10000	8.46	663557	138.82	200100	86,38	100100	43,21	16748494	7230.32	72825	4.22	148766000	1487.66
2.	Reserves	(307618)	(260.28)	(657728)	(137.60)	(259000)	(111.81)	40017	17.28	(18340334)	(7917.52)	(51609)	(2.99)	(129830747)	(1298.31)
3 :	Other Liabilities	<u> </u>	_	22979	4.81	59750	25.79	168	0.07	2253815	972.97	22000	1.28		
4	Total Liabilities	(297618)	(251:81)	28808	6.03	850	0.37	140285	60.56	(661975)	(285.77)	43216	2.51	18935253	189.35
5.	Total Assets	(297618)	(251.81)	28808	6,03	850	0.37	140285	60.56	(661975)	(285.77)	43216	2.51	18935253	189.35
6.	Details of investment	-	_	-		_	_	-	-	ī	_	-	-	59908750	599.09
7.	Turnover	-	-	-	_	111550	48.16	-	-	~	-	· -	-		-
8.	Profit / (Loss) before					· .							1		-
	Taxation	(172530)	(145.98)	(150125)	(31.41)	18582	8.02	17557	7.58	(3277644)	(1414.96)	(51609)	(2.99)	(118013456)	(1180.13)
9.	Provision for Taxation		-	- .	-	-		550	0.24	-	-	-	-	478480	4.78
10.	Profit / (Loss) after Taxation	(172530)	(145.98)	(150125)	(31.41)	18582	8.02	17007	7,34	(3277644)	(1414.96)	(51609)	(2.99)	(118491936)	(1184,92)
11.	The net aggrerate of p	rofit / (loss)	for the cu	rent period	of the Sub	sidiary so fa	v as it conci	ans the me	mbers o	the holding	company		P		
	a) Dealt with or provided for in the														
	accounts of the holding company		(145.98)		(31,41)		8.02		7,34		(1414.96)		(2.99)	· .	(1,184.92)
	b) Not dealt with or provided for in the accounts of the											, ,			
	holding company		ИЙ		Nil		H3		Ni		NS		Nil		. 143
12.	The net aggrerate of p	rofit/(loss) i	or brénons	finanacial	ears of the	Subsidiary	so far as it	concerns ti	е теть	ers of the hol	ding compar	'y	<u>'</u>	'	
	a) Dealt with or provided for in the accounts of the														
.	holding company		(2.38)		(36.34)		(30.27)		(0.14)		(2149.43)	٠.	NA.		(112.14)
	b) Not dealt with or provided for in the accounts of the holding company		EN		N4		NI		NR		NE	·	NA.		Ni

on arrived at by applying the year end rate 1£ = Rs. 84.61, 1 Brapillan Reia = Rs. 20.92, 1 South African Rand = Rs. 5.8 and 1US\$ = Rs. 43.17 and do not form part of the reports of Orchid Europe Limited Ogna Farma Distribuicau pharmaceuticals Inc and Beriel Pharmaceuticals Inc. ii) Holding Compa

> R Narayanan K Raghavendra Rao Managing Director Dr C Bhaktavatsala Rao Dr. M. R. Girinath Dr I Seetharam Nakku Deputy Managing Director Director D S Bhaskara Raju L Chandrasekar Chief Financial Officer

On behalf of the Board

Place: Chennai

OCP00000618

VP - Internal Audit & Secretary



annexure to the directors' report

INFORMATION UNDER SECTION 217(1)(e) OF THE COMPANIES ACT, 1956 READ WITH COMPANIES (DISCLOSURE OF PARTICULARS IN THE REPORT OF BOARD OF DIRECTORS) RULES, 1988 AND FORMING PART OF DIRECTORS' REPORT FOR THE YEAR ENDED MARCH 31, 2007.

Annexure I Conservation of energy

- a) Energy conservation measures taken
 The following energy conservation measures were taken in the manufacturing plants:
- Interconnection of simultaneous utility services and cooling towers at remote locations
- Interlock provision for the accessories in refrigeration systems
- Installation of economizers, de-super heaters in refrigeration systems
- Elimination of primary pumps and optimization of delivery head by regulating the flow in refrigeration systems
- Replacing higher capacity motors with lower capacity motors without affecting the process parameters

- · Reduction in number of air changes
- b) Additional investments and proposals, if any, being implemented for reduction of energy consumption. Some of the proposals that are considered / being implemented for saving energy consumption are:
- Replacement of furnace oil fired boiler with coal-fired boiler
- Replacing WHR boiler by higher capacity boiler to reduce flue gas outlet temperature
- Providing energy efficient aircompressor and refrigeration compressors
- Installation of VAM in CPP hot water circuit
- Replacing the existing single stage screw compressor with double stage screw compressor in refrigeration systems

- c) Impact of the measures at (a) and (b) above for reduction of energy consumption and consequent impact on the cost of production of goods. Due to the energy conservation measures adopted by the Company during the year under review, the Company could achieve a saving of around 24,000 units of electricity consumption per day, leading to a saving of around Rs. 390,15 lakhs per annum.
- Further the energy conservation measures proposed to be taken up by the Company as mentioned in (b) above are expected to bring in additional savings of about Rs. 1640 lakhs per annum.
- d) Total energy consumption and energy consumption per unit of production;

	Year ended March 31, 2007	Year ended March 31, 2006
A. Power and fuel consumption		
1. Electricity*		
a) Purchased:		
Units	9414346	7029788
Total amount (Rs lakhs)	456.37	249.90
Rate per unit (Rupees)	4.85	3.55

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	Year ended March 31, 2007	Year ended March 31, 2006
b) Own generation:		
i) Through diesel generator:		
Units	5070836	4217065
Units per litre of diesel oil	3.48	3.46
Cost per unit (Rupees)	7.05	5.64
ii) Through furnace oil generator:		3.07
Units	72839125	69322750
Units per litre of fuel oil	4.27	4.29
Cost per unit (Rupees)	3.39	2.99
2. Coal		
Quantity (tonnes)	Nil	Nil
Total cost	. Nil	Nii
Average rate	Nil	Nil
. Furnace oil		
Quantity (K litres)	29115.10	26728.76
Total cost (Rs lakhs)	4219.57	3431.32
Average rate (Rs per KL)	14492.72	12837.55
. Others/internal generation		12051.00
i) Windmills		
Quantity (in units) *	2790913	2419815
ii) Gas based		2413013
Quantity (in units) *	374345	Nil
Rate per unit (Rs)	2.63	Nil
Consumption per unit of production		
Products with details:		
i) Bulk drugs & intermediates		
Oral & sterile (in MT)	764	720
Electricity (Rs lakhs per MT)	3.65	3.21
Furnace Oil (Rs lakhs per MT)	5.18	4.76
Coal	Nil	4.78 Nil
Others	Nil Nil	Nij Nij
19 F		TAI)

ii) Formulations

It is not practical to classify energy consumption data on the basis of product, since the Company manufactures finished dosages in various forms and pack sizes with different energy requirements.

^{*} Units generated are wheeled to our manufacturing facilities



Annexure II Technology absorption

- I. Research and Development
- Specific areas in which research and development activities have been carried out by the Company during the year.

The Company's areas of research comprise process research, new drug discovery research, pharma research and biotechnology research.

The focus of process research has been mainly on developing non-infringing processes for APIs to support the generics activities in the regulated markets. The research covers the areas of antibiotic and non-antibiotic APIs.

The laboratories are well equipped to synthesize and evaluate simple to complex molecules at various levels during the development stage. A team of dedicated scientists work on the process design and synthesis of the molecules. Complete analytical profiling of the APIs and method validation are done as part of the development.

The focus of pharma research has been on developing non-infringing formulations for US and European generic markets. Formulations for emerging markets are also developed. Accent is also on developing novel drug delivery systems, which could offer therapeutic benefits for select products.

Drug discovery, under Orchid Research Laboratories Limited (ORLL) has separate laboratories for medicinal chemistry, analytical chemistry, molecular modeling, pharmacology, pharmacokinetics and safety toxicology. ORLL continues to focus on anti-inflammatory, anti-cancer, anti-infective and metabolic disorder programmes. In anti-inflammation and anti-cancer areas, promising candidates have been identified for intensive preclinical development leading to proposed IMPD / IND filings this fiscal. There is a healthy pipeline of active molecules in these areas. The Company has also developed innovative biological screens in the above mentioned areas to achieve multi-screening of compounds and enlarge the basket of promising hits. Attempts are being made in preformulation department to achieve improved oral bio-availability for many of the promising hits. Further proof-ofconcept clinical studies and mechanism studies of anti-diabetes BLX1002 are being addressed. Research and Development efforts have lead to several international and national filings for novel product patents.

The Company has commenced a collaborative agreement with Indian Institute of Technology Madras (IIT-M), under Department of Science and Technology (DST), Government of India programme in the emerging high-technology field of nanotechnology.

ORLL is continuing its collaboration with Shanmugha Arts, Science, Technology and Research Academy (SASTRA) as part of another DST program for development of a novel herbal formulation for coronary heart disease.

A collaboration agreement was signed with a discovery company in Sweden, Biovitrum for providing medicinal chemistry support for design and synthesis of a novel inhibitor for a receptor. The projects with Pfizer for custom synthesis and manufacture of products for its veterinary NCE programme are also continuing.

Biotechnology laboratory is involved in the development of cost-effective and environment-friendly technologies for the manufacture of various raw materials and intermediates required for cephalosporin production. Process development for the manufacture of a key intermediate based on proprietary technology is underway.

Benefits derived as a result of the above Research and Development activities

The process research has resulted in development of several non-infringing patentable processes and supported API development for generics. Several APIs were developed and 20 DMFs filed during the year

Pharma research has resulted in development of a number of generic

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products for US, Europe and other global markets. Products have been specifically developed for US and 14 ANDAs filed.

Products have been developed for Europe based on which 9 dossiers were filed. As part of the filings, the Company could make two Paragraph IV first to file submissions with the US FDA for two generic launches.

As a result of ORLL activities, a robust NCE pipeline has been built in the areas of oncology, inflammation, diabetes, anti-infectives and certain other areas. The clinical and pre-clinical developments are underway in diabetes, oncology and inflammation areas.

Biotechnology research has resulted in the development of 'green chemistry' which rendered certain manufacturing operations more eco-friendly and also resulted in cost savings.

Future plan of action

The Company's R&D aims to constantly upgrade the technical expertise of the teams and ensure that the latest facilities and techniques are used to accelerate research activity in line with international standards. Fast screening of drugs at a very early stage of the projects will further help in accelerating the projects in hand. Advanced instruments for polymorph analysis and detection will be acquired at the R&D centres and the same would also be installed at the manufacturing locations to ensure

consistency of product quality. Automation in documentation practices and analytical instruments will be given major importance in the coming years to ensure regulatory compliance and error free documentation. Process Automation Technology (PAT) which finds global acceptance as a tool to ensure consistency in quality of the processes and products will also be considered for implementation at the manufacturing sites.

Orchid's value proposition of end-to-end drug discovery solution, which covers in silico designing, synthesis and biological screening, will be further reinforced. Efforts are being focused on lead optimization of the hits to enhance new drug discovery pipeline. Two of the promising leads in the areas of inflammation and cancer are being evaluated for regulatory dog toxicology studies based on which they will be taken to Phase I human studies. The Phase II (a) clinical trial on anti-diabetes product will be completed during this fiscal.

In the area of biotechnology, future plan of action include development of novel enzymes for achieving green chemistry for more of cephalosporin intermediates and end products. Additional projects to reduce or eliminate the usage of relatively hazardous chemicals will be undertaken.

4. Expenditure on R&D
The R&D outlay has been as follows:

(Rs lakhs)

	Year ended	Year ended
	March 31,	March 31,
a) Comital	2007	2006
a) Capital	2334.46	3474.15
b) Recurring	3963.13	2662.10
c) Total	6297.59	6136.25
d) Total R&D	,_	
expenditure as		
a % of the		•
total turnover	6.74	6.90

- Il Technology absorption, adaptation and innovation
- Efforts in brief, made towards technology absorption, adaptation and innovation.

During 2007-08, process R&D has developed and initiated scale-up activities on cephalosporin antibiotics such as Cefepime for EU, Ceftibuten, Aztreonam, Cefditoren pivoxil and a couple of veterinary cephalosporin products. A highly stable polymorphic form of a key antibiotic has been identified and process for producing through a novel patentable process has been developed. The PCT application has been published, with international search report acknowledging the novelty and other elements.



Apart from cephalosporin antibiotics, R&D has developed and scaled up in Pilot Plant, a new penem antibiotic. R&D also carried out product development activities on a range of cephalosporins, carbopenems and their intermediates, in the area of drug discovery, the programmes have resulted in the development of robust platforms for progressing of NCEs in the identified areas of diabetics, inflammation, oncology and anti-infectives. Several novel biological arrays have been established as part of this. A new drug discovery effort has resulted in an improved beta lactamase inhibitor.

2. Benefits derived as a result of the above efforts, e.g. product improvement, cost reduction, product development, import substitution, etc.

The above have resulted in the

development of additional generic products, both APIs and dosage forms for broader business development in regulated and emerging markets. Improvement of stability, enhancement of process efficiency and reduction of costs have been some of the tangible benefits. Availability of newer generic products through the efforts of the Company's R&D reduce the import dependence of the costs on one hand and enhance the export competitiveness. Several of the generic API processes and formulations have been patended.

Research in new drug discovery has resulted in the development of several patentable NCEs for which patent applications have been filed in national and international patent offices. Work during the year resulted in advancing of various compounds across the set

developmental milestones of discovery and pre-clinical activities.

In the field of biotechnology too, several product patent applications have been filed to protect proprietary enzymemutants and corresponding processes for key raw materials and intermediates. Technology for enzymatic production of a key intermediate was developed and successfully transferred for commercial manufacturing. It is an improved process; which avoids undue demand for utilities and enhances product quality. Similarly, enzymatic technology for the manufacture of a cephalosporin product has been transferred for process scale-up. Effort is made to extend the same technology for multiple products within this year and it is likely to create major impact in the operational environment and reduction in the use of hazardous chemicals.

3. Imported technology (imported during the last 5 years reckoned from the beginning of the financial year):

a) Technology	No new technology has be	en imported by Orchid du	ono the year.
b) Year of import	Not applicable.		
c) Has this technology been fully absorbed	Not applicable.	· · · · · · · · · · · · · · · · · · ·	-1-1
d) If not fully absorbed, areas where this has not taken			
place, reasons thereof and future plans of action.	Not applicable.		

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Annexure III

Foreign exchange earnings and outgo

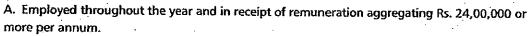
- a) Activities relating to exports, initiatives taken to increase exports, development of new export markets for products and services, and export plans.
- Focus on the regulated generic drugs markets: To improve market share, the Company is focusing on the sale and distribution of APIs and generics in regulated markets including the United States, Canada, Europe, Japan, and Australia, as applicable.
- b) Total foreign exchange earnings and outgo

(Rs. Lakhs)

			, voi commy
		Year ended March 31, 2007	Year ended March 31, 2006
1.	Earnings in foreign exchange during the year		
	F.O.B value of exports	70108.35	62101.36
	Export of services (net of TDS)	2937.96	4329.09
2.	C.I.F. Value of imports (on cash basis)		
	Raw materials	31428.70	32280.59
	Capital goods	5272.42	3347.28
	Spare parts, components and consumables	6671.20	3594.55
3.	Expenditure in foreign currency during the year (on cash basis)		
	Travelling expenses	136.34	101.91
	Interest and bank charges	1098.24	755.48
	Consultancy fees	525.11	191.87
	Others	5537.98	2847.86
4.	Dividend remittances in foreign currency during the year		
	Net dividend	425.68	479.55
5.	Total foreign exchange used (2+3+4)	51095.67	30246.65



Particulars of Employee Annexure IV to Directors' Report Information Pursuant to Section 217(2A) of The Companies Act, 1956



Name	Age (Yrs)		Gross Remuneration (Rs lakhs)		Experience in years	Date of Joining	Previous Employer & Position held
Ashutosh Ojha	50	Country Head (Domestic Formulations)	34,61	B.Pharm., MBA	26	15-Jan-05	Alkern Laboratories Limited, President – Corp Strategy & Business Development
Dr Bhaktavatsala Rao C *	57	Deputy Managing Director	99.22	B.E., M.Tech, Ph.D.	33	19-Aug-98	Ashok Leyland Limited, Deput General Manager Corporate Planning
Bhaskara Raju D S	46	President Finance & Business Planning	41.02	B.Com., ACA	24	1-Jul-92	Oman Chemicals & Pharmaceuticals Limited, LLC, Sultanate of Oman, Finance Manager.
Chandrasekar L	49	Vice President — Internal Audit & Company Secretary	32.99	B.Sc., FCA, FCS, DICM, DISA	25	9-Jul-93	Air Command India Limited DGM - Finance & Secretary
Deshpande P N	49	Vice President — Production & Technical	27.13	M.Sc.	27	2-May-97	SOL Pharmaceuticals Limited, Senior Manager - Production Development
Dwarakanath C R	53	Vice President – Corporate Safety, Health & Environment	27.44	B.Tech, DMS	31	6-Aug-98	Arvind Mills Limited, General Manager - Materials
Edna Braganza	45	Senior Vice President – International Marketing & Procurement	41.36	B.Com.	24	1-Nov-93	Al Buraimi Group, Sultanate of Oman, Commercial Manager
Dr Gautam Kumar Das	54	President (API)	49.53	M.Sc., Ph.D.	28	1-Apr-95	Lupin Laboratories Limited, Senior Manager – Process Development
lmtiyaz Basade	41	Vice President — Regulatory Affairs	37.92	M.Pharm.	18	2-Jan-06	Wockhardt Limited, Vice President – Global Scientific & Regulatory Affairs
Kalidindi V Raju		Senior Vice President Manufacturing	31.00	M.Pharm., PGDMM, M8A	24	2-Jan-04	Kunshan flotam Reddy Pharmaceuticals Limited, Vice General Manager - Manufacturing
Dr Mahender Rao S		Vice President – Chemical Development	24.05	M.Sc., Ph.D.	11	4-Mar-04	Dr Reddy's Laboratories Limited
Mani 5	- 1	Senior Vice President – Manufacturing & CSR	41.18	B.E. (Mechanical)	24	1-Jui-92	Bharat Heavy Electricals Limited, Deputy Manager - Projects Management
Nammalvar S		Vice President — Projects & Engineering Services	30.29	M.E.(Chem)., PGDBM	27		Wooldhardt Limited, Associate Vice President
Dr Praveen Reddy	45	Head – Pharma Research	35.82	M.Pharm, Ph.D.	19	5-Aug-05	Dr Reddy's Laboratories Limited, Director R&D

Name	Age (Yrs)	Designation	Gross Remuneration (Rs lakhs)	1	Experience in years	Date of Joining	Previous Employer S Position held
Rangesh M S	49	Vice President – Human Resources	33.21	B.Sc., PGDPM&IR, BGL	26	1-Dec-04	Madhvani Group of Companies, Uganda (Africa), Group General Manager – HR
Raghavendra Rao K *	48	Managing Director	527.51	B.Com., PGDM (IIM-A), ACS, AKWAI	28	1-Jul-92	Al Buraimi Group, Sultanate of Ornan, Director
Ramesh K	43	Vice President – Analytical Development	24.26	M.Sc., M.Tech.	19	5-Apr-01	Ranbaxy Laboratories Limited
Dr Senthil Kumar U P	41	Vice President - Chemical Devlopment	25.35	M.Sc., Ph.D.	13	6-Aug-97	Torrent Pharmaceuticals Limited, Manager

B. Employed for part of the year and in receipt of remuneration aggregating Rs. 2,00,000 or more per month.

Chadrasekharan A R	54	President – Corporate Finance	10.35	B.Com (Hons.), LL.B, ACA, ACS, CARB	32	19-Jan-02	Sterlite Industries India Limited, Vice President (Finance)
Chandan Kumar S	49	Senior Vice President Manufacturing (API)	14.37	M.Sc. (Org. Chem)	26	4-Dec-06	Astrix, Head - India Operations
Makarand Deshpande	46	Vice President – International Marketing	10.58	B.Sc.	. 23	1-Oct-04	Cadila Health Care Limited, General Manager – Exports
Dr.Om Reddy G	57	President & Chief Scientific Officer	37.43	M.Sc., Ph.D.	30	4-Dec-03	Dr Reddy's Laboratories Limited, Senior Vice President
Dr Rajiv Desai	44	Vice President - Analytical R&D and Quality control	0.94	M.Sc., Ph.D., MBA	18	19-Mar-07	Dr Reddy's Laboratories Limited, Director — Quality Management, API
Or Sanjiv Sharma	41	Vice President – Regulatory Affairs & Quality Assurance	28.64	M.Sc., Ph.D.	18	4-Jul-06	Dr Reddy's Laboratories Limited
Sridharan S	45	Vice President – Information Technology	27.44	B.E., MBA	23	1-Jun-06	Tata Tea, CIO
Dr Sumant Baukhandi	52	President Regulatory Affairs & Quality Assurance	15.53	M.Sc., Ph.D.	30	4-Mar-02	Ranbaxy Laboratories Limited, General Manager (Quality Operations & GMP's Training)
Umesh D Kapre	49	Vice President Manufacturing	26.24	B.Tech.	26	19-Jul-04	Ranbaxy Laboratories Limited, Senior Manager

- NOTES: 1. Gross Remuneration includes salary, house rent, bonus / incentive and other perks like medical reimbursement, leave travel assistance, Company's contribution towards provident fund etc.,
 - 2. All appointments are in terms of respective letters of appointment and applicable Company's rules and regulations except in the case marked* whose appointments are contractual
 - 3. None of the employees mentioned in the list is a relative of any Director of the Company.



corporate governance Annexure V to the Directors' Report



1. Philosophy on Code of Corporate Governance

Ever since its inception Orchid was committed to the highest standards of Corporate Governance practices because it believes that a robust Corporate Governance policy drives healthy business growth and reinforces vibrant capital markets, besides being an important instrument of investor protection. Good Corporate Governance provides an appropriate framework for the Board and the management to set corporate objectives to enhance shareholder wealth. Orchid complies with the Corporate Governance code enshrined in Clause 49 of the Listing Agreement.

2. Board of Directors

The Chairman of the Board of Directors is a Non-Executive, Independent Director. The Board has a composition of two Executive Directors and eight Non-Executive Directors. Four out of 10 Directors are Independent Directors.

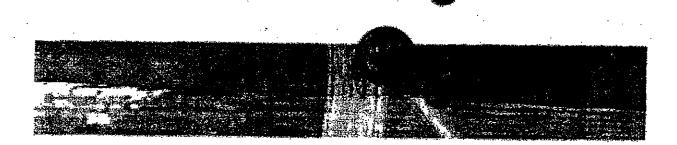
Composition and category of Directors as of March 31, 2007 is as follows:

SI No		Category	Number of Directorships held in other Indian companies [©]	Number of Board Committee memberships held in other companies*
<u> </u>	Shri R Narayanan	Non-Executive – Independent	12	5.
2 .	Shri K Raghavendra Rao	Promoter and Executive Director	None	None
3,	Dr C Bhaktavatsala Rao	Executive Director	None	None
4.	Dr M R Girinath	Non-Executive - Independent	· None	None
5.	Dr I Seetharam Naidu	Non-Executive - Independent	None	None
6.	Shri Subramanian Andi (IDBI Nominee)	Non-Executive - Independent	None	None
7.	Shri Deepak Vaidya	Non-Executive	4	3
8.	Dr Bishwajit Nag	Non-Executive	1.	None
. 9.	Dr Anzaghi Piergiorgio	Non-Executive	None	None
10.	Shri Anil Thadani / Shri Raj Rajkumar is an Altemate Director to Shri Anil Thadani	Non-Executive	2	None

[@] Excludes foreign companies and private limited companies.

Includes only membership in Audit and Investor Grievance Committee.

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Attendance record of the Directors

Five Board meetings were held during the year from April 01, 2006 to March 31, 2007. The dates on which the meetings were held are April 28, May 04, July 27, October 19 in 2006 and on January 19 in 2007. The attendance records of all Directors are as follows:

Name(s) of Director(s)	No of Bo	Last AGM Attendance	
	Held	Attended	
Shri R Narayanan	5	4	Present
Shri K Raghavendra Rao	5	5	Present
Dr C Bhaktavatsala Rao	5	5	Present
Dr M R Girinath	5	. 5	Not Present
Dr I Seetharam Naidu	5	5	Present
Shri Deepak Vaidya	5	3	Not Present
Shri Subramanian Andi	5 .	4	Present
Dr Anzaghi Piergiorgio	5	2	Not Present
Dr Bishwajit Nag	5	4	Present
Shri Anil Thadani / Shri Raj Rajkumar	5	4	Not Present
Dr Francis Pinto '	3	0	Not Present

¹ Resigned from the Board with effect from August 21, 2006.

3. Audit Committee

The Company constituted an Audit Committee comprising Non-Executive Directors during 1998.

Terms of Reference of the Audit Committee include:

- a. A review of
- financial statements before submission to the Board
- draft financial statements and Auditors'

Report (before submission to the Board)

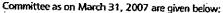
- accounting policies and practices
- risk management policies and practices
- compliance with stock exchange and legal requirements concerning financial statements
- · related party transactions
- the internal control systems and internal audit reports and their

compliance thereof, and

b. Recommending the appointment of Auditors and fixing their fee Four meetings were held during the year from April 01, 2006 to March 31, 2007. The said meetings were held on April 28, July 27, October 19 in 2006 and on January 19 in 2007.

The constitution of the Committee and the attendance of each member of the





Name	Category	No of r	No of meetings		
		Held	Attended		
Shri R Narayanan, Chairman	Non-Executive – Independent	4	3		
Dr M R Girinath	Non-Executive - Independent	4	4		
Dr l'Seetharam Naidu	Non-Executive - Independent	4			
Shri Deepak Vaidya	Non-Executive	Δ*			
Shri Subramanian Andi	Non-Executive – Independent				

^{*} Shri Raj Rajkumar, alternate to Shri Anil Thadani attended an Audit Committee meeting in the absence of Shri Deepak Vaidya. Both Shri Deepak Vaidya and Shri Anil Thadani are Investor Directors.

The Chairman of the Audit Committee, Shri R Narayanan was present at the Annual General Meeting of the Company held on June 02, 2006.

The Company Secretary is the Secretary of the Audit Committee.

4. Remuneration Committee

The Remuneration Committee determines and recommends the remuneration payable to the Executive Directors. The Board of Directors approves the remuneration payable to the Executive Directors on the basis of their performance as well as the Company's performance, subject to consents as may be required.

The Non-Executive Directors are not paid any remuneration except for the sitting

fees for attending the Board meetings / Committee meetings.

The resolutions for the appointment and remuneration payable including commission to the Executive Directors are approved by the shareholders of the Company.

The remuneration to the Executive Directors consists of a fixed salary and other perquisites. The leave travel allowance is paid as per the Company rules. Provident fund and superannuation are provided for as per the Company's policy. Wherever applicable the perquisites are considered a part of remuneration and taxed as per income tax laws. The commission recommended by the Remuneration Committee to the Board is paid to the Managing Director

in accordance with the provisions of the Companies Act. 1956.

The Remuneration Committee comprises Shri R Narayanan, Dr M R Girinath, Dr I Seetharam Naidu, Shri Deepak Vaidya and Shri Subramanian Andi, all Non-Executive Directors. The Committee deals with all elements of remuneration package, stock options, service contracts, etc. of all whole-time Executive Directors. One meeting of the Remuneration Committee was held during 2006-07 on April 28, 2006 and all the Directors except Shri Deepak Vaidya attended the meeting. However, Shri Raj Rajkumar attended the Remuneration Committee meeting in the absence of Shri Deepak Vaidya.

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Details of remuneration paid to Directors for the year 2006-07 are given below:

Rs. lakhs

Name(s) of Director(s)	Remuneration paid during the year 2006-07						
	Salary Commission/ bonus / incentive		Sitting fees Tota				
Shri R Narayanan, Chairman		-	5.80	5.80			
Shri K Raghavendra Rao	152,41	375.10*	· _	527.51			
Dr C Bhaktavatsala Rao	99.12	0.10		99.22			
Dr M R Girinath	-	_	3.20	3.20			
Dr I Seetharam Naidu	-	-	3.40	3.40			
Shri Deepak Vaidya	-	-	1.20	1.20			
Shri Subramanian Andi, Nominee - IDBI	-		2.20	2.20*			
Dr Anzaghi Piergiorgio	_	÷	0.40	0.40			
Dr Bishwajit Nag			0.80	0.80			
Shri Anil Thadani / Shri Raj Rajkumar.			1.20	1.20			
Dr Francis Pinto [©]	-		_				

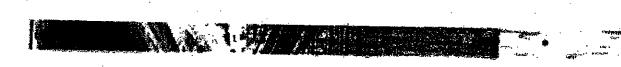
^{*} Sitting fees of Rs. 2.20 lakhs paid directly to IDBI Limited.

During the year, the Company has granted employee stock options to the following Directors at a price of Rs. 193.25 per share.

Name(s) of Director(s)	Number of op	tions granted
	1999 Scheme	2005 Scheme
Dr Bishwajit Nag	NIL	5,00,000
Dr C Bhaktavatsala Rao .	NIL	6,000
Shri Deepak Vaidya	NIL	10,000

⁺ Includes commission of Rs. 375 lakhs approved by the Board at its meeting held on May 03, 2007 and yet to be paid.

[@] Resigned from the Board with effect from August 21, 2006.



The shares held by Directors as on March 31, 2007 are given below:

Name(s) of Director(s)	Number of shares
Shri R Narayanan	14,567
Shri K Raghavendra Rao	69,25,173
Dr C Bhaktavatsala Rao	15
Dr M R Girinath	4,89,934
Dr I Seetharam Naidu	3,47,430
Shri Deepak Vaidya	· NIL
Shri Subramanian Andi	NIL
Dr Anzaghi Piergiorgio	NIL
Dr Bishwajit Nag	NIL
Shri Anil Thadani	NIL
Shri Raj Rajkumar	70,000

5. Share transfer and Investors' Grievance Committee

The Company's shares are compulsorily traded in dematerialized form. The Committee has met once a month to consider the transfers in the physical segment. During 2006-07, the Committee met 12 times on April 28, June 01, June 29, July 28, August 29, September 26, October 26, November 24, December 27 in 2006 and on January 29, February 28 and March 26 in 2007.

Name(s) of Director(s)	No of	meetings
	Held	Attended
Shri R Narayanan, Chairman	12	12
Shri K Raghavendra Rao	12	12
Dr C Bhaktavatsala Raó	12	12

The Board has designated Shri L Chandrasekar, Company Secretary as Compliance Officer.

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The following table shows the nature of complaints received from shareholders during 2006-07 and 2005-06, all of which have been responded within one month.

5.No.	Nature of complaints	Received and answered		
		2006-07	2005-06	
1.	Non-receipt of share certificates sent for transfer/bonus shares	31	61	
2.	Non-receipt of dividend warrants	38	27	
3.	Complaints from SEBI, stock exchanges and government departments	2	4	
	Total	71	92	

6. Details of Annual/Extraordinary General Meetings

Location and start time of the General Meetings held in the past three years

Year	AGM / EGM	Location	Date	Time
2007	EGM	Kamaraj Memorial Hall, New No. 492, Old No. 573, 574-A, Anna Salai, Chennai 600 006.	14/02/2007	10.00 AM
2006	AGM	Kamaraj Memorial Hall, New No. 492, Old No. 573, 574-A, Anna Salai, Chennai 600 006.	02/06/2006	10.00 AM
2005	EGM	Kasturi Srinivasan Hall, The Music Academy, Old No. 306, New No. 168, TTK Road, Royapettah, Chennai 600 014.	18/08/2005	10.30 AM
2005	AGM	Kamaraj Memorial Hall, New No. 492, Old No. 573, 574-A, Anna Salai, Chennai 600 006.	18/07/2005	10.30 AM
2004	AGM	The Music Academy, Main Hall, Old No. 306, New No. 168, T T K Road, Chennai 600 014.	28/07/2004	10.30 AM
2004	EGM	Sathguru Gnanananda Hall, (Narada Gana Sabha), No. 314, (Old No. 254), TTK Road, Chennai 600 018.	10/04/2004	10.30 AM

All the resolutions including the special resolutions set out in the respective notices were passed by the shareholders unanimously. None of the resolutions passed at the above meetings were required to be passed through postal ballot.



- No transaction of material nature were entered into by the Company with related parties i.e. Company's subsidiaries, Directors or management or relatives conflicting with the Company's interest
- Transactions with the related parties are disclosed in Note 20 of Schedule "Q" to the financial statements in the Annual Report
- There were no instances of noncompliance by the Company on any matter related to capital markets during the preceding three years. Hence, there were no penalties, strictures imposed by SEBI / Stock Exchange or any other statutory authorities against the Company
- Presently the Company does not have a whistleblower policy. No employee has been denied access to approach the Audit Committee to report any serious concerns
- No differential treatment from the Accounting Standards was followed in the preparation of the financial statements of the Company
- 8. Means of communication
- Financial results are published by the Company in Economic Times and Dinamani / Dinamalar
- · Results are also displayed in the URL

www.orchidpharma.com. Official news releases are also updated in the site

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- Presentations made during the year are available on the Company's website www.orchidpharma.com
- General shareholder information and Management's discussion and analysis
 Appended to this Report as Annexure VII
- 10. CEO / CFO Certification

As required under Clause 49 of the Listing Agreement a Certificate duly signed by Shri K Raghavendra Rao, Managing Director (CEO) and Shri D S Bhaskara Raju, President – Finance and Business Planning (CFO) was placed at the meeting of the Board of Directors held on May 03, 2007.

 Auditors' Certificate on compliance of conditions of Corporate Governance Certificate from the Auditors is enclosed along with this Report.

Non-mandatory requirements

1. Chairman's office

The Company maintains an office for the Chairman at its registered office at 'Orchid Towers', 313, Valluvarkottam High Road, Nungambakkam, Chennai – 600 034, Tamil Nadu, India and also reimburses the expenses incurred in

performance of his duties.

2. Remuneration Committee

The Company has constituted a Remuneration Committee. The Terms of Reference of the Committee have been described at Serial No.4 herein above.

3. Shareholders rights

The quarterly financial results are published in the newspapers as mentioned in Serial No. 8 above. The results are also displayed on the web site of the Company and are not separately circulated to the shareholders.

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Code of Conduct Certification

The Board of Orchid Chemicals & Pharmaceuticals Limited has laid down a code of conduct for all Board members and senior management. The code of conduct has been posted in the Company's URL namely www.orchidpharma.com. All the Board members and the senior management have affirmed compliance of the code for 2006-07.

Place: Chennai Date: May 03, 2007

K Raghavendra Rao Managing Director

Auditors' Certificate on Corporate Governance

To

The Members of

Orchid Chemicals & Pharmaceuticals Limited

We have examined the compliance of conditions of Corporate Governance by Orchid Chemicals & Pharmaceuticals Limited (the Company), for the year ended on March 31, 2007, as stipulated in Clause 49 of the Listing Agreement of the said Company with the stock exchanges.

The compliance of conditions of Corporate Governance is the responsibility of management. Our examination was limited to procedures and implementation thereof, adopted by the Company to ensure compliance with the conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in Clause 49 of the above-mentioned Listing Agreement.

We state that in respect of investor grievances received during the year ended March 31, 2007, no investor grievances are pending against the Company for more than one month as per the records maintained by the Company and presented to the Investors' Grievances/Share Transfer Committee.

We further state that such compliance is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For SNB ASSOCIATES
Chartered Accountants

Place: Chennai Date: May 03, 2007 (S Lakshmanan)

Partner

Membership No. 20045

Annexure VI to the Directors' Report

Details of options granted to employees under ORCHID - ESOP 1999 & ESOP 2005 Scheme

Options granted

ORCHID - ESOP 1999 Scheme

- * During 2006-07, 300,000 options were granted
- In the year 2005-06, 292,075 options were granted
- In the year 2003-04, 307,925 options were granted
- In the year 1999-00, 600,000 options were granted

ORCHID - ESOP 2005 Scheme

Doring 2006-07, 610,000 options were granted

The above options are convertible into equity share of Rs. 10 each.

The pricing formula

The price being the closing price of shares of Orchid on the date on which the options were granted by the Compensation Committee of the Board of Directors.

ORCHID - ESOP 1999 Scheme

- * 2006-07 Rs. 339.25*
- 2005-06 Rs. 300.65
- 2003-04 Rs. 252.00
- 1999-00 Rs. 243.35

Subsequent to the bonus issue, the number of options outstanding and the price were adjusted by the Board. Accordingly, the revised price applicable for the options allotted during various years prior to bonus issue have been revised as follows:

- 2005-06 Rs. 200.44
- 2003-04 Rs. 168.00
- 1999-00 Rs. 162.24
- * For the options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options from Rs. 339.25 to Rs. 193.25 (as per the closing price of Orchid on August 11, 2006, being the date of the Compensation Committee meeting in which repricing was considered), subject to the obtaining of the approval from the shareholders.

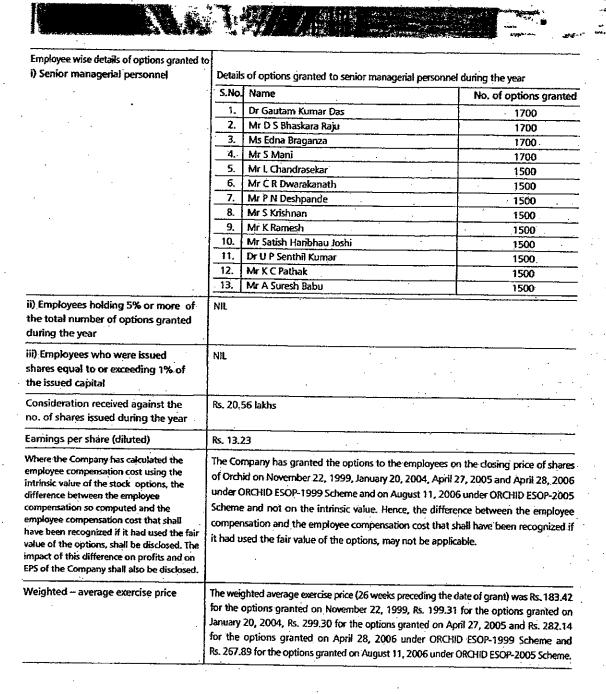
ORCHID - ESOP 2005 Scheme

• 2006-07 - Rs. 193.25

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Options vested during the year	292,075 options granted under 1999 Scheme
Options exercised during the year	11,325 options (including the adjusted options that were exercised by the employees subsequent to the Bonus issue)
Total no. of shares arising out of exercise of options	11,325 shares
Options lapsed	608,272 options (507,929 options have lapsed out of the original 1,500,000 options granted under ORCHID ESOP 1999 Scheme and 100,343 options have lapsed out of the options arising out of the adjustment due to bonus issue)
Variations of terms of options	ORCHID ESOP 1999 Scheme
	An adjustment in share price/the number of options outstanding was made by the Company in respect of the Employee Stock Options granted but not exercised by the
·	Employees due to the issue of bonus shares during October 2005. Accordingly, the total numbers of options outstanding (so as to be multiplied by 3/2) as well as the price at
	Employees due to the issue of bonus shares during October 2005. Accordingly, the total numbers of options outstanding (so as to be multiplied by 3/2) as well as the price at which each option may be exercised (so as to be multiplied by 2/3) were adjusted. For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject to the obtaining of the approval from the shareholders.
Total no. of options in force	Employees due to the issue of bonus shares during October 2005. Accordingly, the total numbers of options outstanding (so as to be multiplied by 3/2) as well as the price at which each option may be exercised (so as to be multiplied by 2/3) were adjusted. For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject
Total no. of options in force	Employees due to the issue of bonus shares during October 2005. Accordingly, the total numbers of options outstanding (so as to be multiplied by 3/2) as well as the price at which each option may be exercised (so as to be multiplied by 2/3) were adjusted. For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject to the obtaining of the approval from the shareholders.
Total no. of options in force	Employees due to the issue of bonus shares during October 2005. Accordingly, the total numbers of options outstanding (so as to be multiplied by 3/2) as well as the price at which each option may be exercised (so as to be multiplied by 2/3) were adjusted. For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject to the obtaining of the approval from the shareholders.
Fotal no. of options in force	Employees due to the issue of bonus shares during October 2005. Accordingly, the total numbers of options outstanding (so as to be multiplied by 3/2) as well as the price at which each option may be exercised (so as to be multiplied by 2/3) were adjusted. For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject to the obtaining of the approval from the shareholders.





Filed 08/28/2008

Annexure VII to the Directors' Report General Shareholders' Information

1. Registered Office	'Orchid Towers', 313 Valluvar Kottam High Road, Nungambakkam,
Date, time and venue of 15th Annual General Meeting (AGM)	Chennai - 600 034, Tamil Nadu, India. July 19, 2007, 10.30 a.m. at Kamaraj Memorial Hall, New No. 492, Old No. 573, 574-A, Anna Salai, Chennai 600 006, Tamil Nadu, India.
Dividend Payment Date for fiscal 2007	End of July 2007 subject to approval of shareholders.
4. Dates of book closure	July 15, 2007 to July 19, 2007 (both days inclusive)
5. Financial Calendar	15, 2007 (BOUT GBYS INCIUSIVE)
Financial reporting for	
Quarter ending June 30, 2007	Third week of July 2007
Quarter ending September 30, 2007	Last week of October 2007
Quarter ending December 31, 2007	Last week of January 2008
Year ending March 31, 2008	Last week of April 2008
6. The equity shares of Rs. 10/- each are listed at	Madras Stock Exchange Limited
	Exchange Building, Post Box No. 183, New No. 30 (Old No. 11), Second Line Beach, Chennai - 600 001, Tamil Nadu, India Tel: 91-44-25228951, Fax: 91-44-25244897
	National Stock Exchange of India Limited Regd Office: "Exchange Plaza", Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051, Maharashtra, India Tel: 91-22-26598100, 56418100, Fax: 91-22-26598237 / 38, 26598120
	Bombay Stock Exchange Limited
	New Trading Ring, Rotunda Building, Phiroze Jeejeebhoy Towers, Dalal Street, Fort, Mumbai - 400 001, Maharashtra, India Tel: 91-22-22721233, 22721234, Fax: 91-22-22723677, 22722082 / 3132
7. Foreign Currency Convertible Bonds (FCCBs)	312
Aggregating to US\$ 42.5 million issued in November 2005 and due in November 2010 are listed at	Luxembourg Stock Exchange Bourse de Luxembourg BP 165, I-2011 Luxembourg, Siège social, 11, avenue de la Porte-Neuve Tel: +352 47 79 36-1; Telefax: +352 47 32 98
Aggregating to US\$ 175 million issued in February 2007 and due in February 2012 are listed at	Singapore Exchange Limited 2 Shenton Way #19-00 SGX Centre 1, Singapore 068804 Tel: (65) 62368888, Fax: (65) 65362005



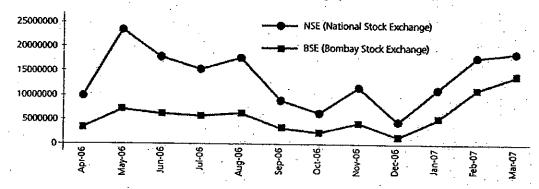
8. Listing Fees

Listing Fees has been paid for all the above Stock Exchanges for 2006-2007 and 2007-2008

a) Monthly high and low quotations along with the volume of shares traded at NSE and BSE for 2006-2007 are:

Month		NSE		NSE S&P		BSE		BSE 500
	High	Low	Volume of	CNX 500	High	Lovy	Volume of	Index
	(Rs)	(Rs)	Shares (Nos)	Index (Avg)	(Rs)	(Rs)	Shares (Nos)	(Avg)
Apr-06	399.95	309.20	9793979	2995	399.90	319.90	3281494	4690
May-06	-352.00	160.00	23315733	2937	353.00	179.60	6986307	4630
Jun-06	233.90	142.00	17780201	2425	234.00	142.35	5998340	3824
Jul-06	207.55	164.50	15237573	2524	207.90	164.50	5682908	3970
Aug-06	213.50	174.20	17617196	2715	213.70	174.50	6276462	4276
Sep-06	219:85	199.00	8836622	2898	220.00	199.00	3049870	4579
Oct-06	217.80	202.00	6198985	3046	218.30	202.00	2195652	4835
Nov-06 .	235.90	204.60	11503725	3216	234.60	204.80	4196545	5128
Dec-05	214.80	180.55	4455615	3245	214.75	180.55	1290700	5187
Jan-07	254.95	195.20	11028368	3356	254.75	192.50	4848445	5365
Feb-07	271.90	222.70	17763972	3367	272.00	221.95	11146865	5372
Mar-07	269.50	204.00	18700538	3073	270.00	204.00	13860930	4865
Total			162232507		-		68814518	

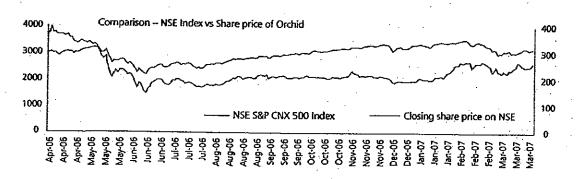
b) Graphical representation of Volume of Shares traded of Orchid during April 2006 - March 2007

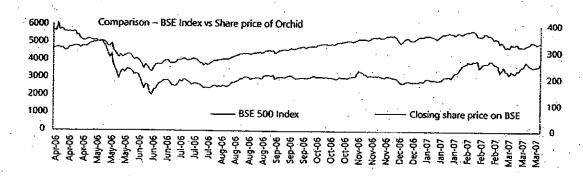


^{9.} Stock Market data

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c) Comparison of broad based indices with share price of Orchid





Stock Exchange Security Code and other related information	10.	Stock Exc	hange Security	Code and	other	related	information
--	-----	-----------	----------------	----------	-------	---------	-------------

Madras Stock Exchange Limited	OCL	·		· ·	
Bombay Stock Exchange Limited	524372				
National Stock Exchange of India Limited	ORCHIDCHEM				
Luxembourg Stock Exchange	US68572Y2090				٠.
Singapore Exchange Limited	XS0287742653			•	
Depository ISIN No.	INE191A01019				
Corporate Identification Number (CIN)	L24222TN1992PLC022994		٠.		



11. Distribution of Shareholding as on

No of equity shares held	31st March 2007			31st March 2006		
	No of shares	No of Shareholders	% of Shareholders	No of shares	No of Shareholders	% of Shareholders
1 – 500	5607754	49226	92.76	4358756	34177	90.94
501 - 1000	1614297	2142	4.04	1378281	1879	5.00
1001 - 2000	1274621	882	1.66	1195657	837	2.23
2001 - 3000	671705	259	0.49	610252	236	0.63
3001 - 4000	423072	120	0.23	375024	106	0.28
4001 - 5000	358020	77	0.15	310244	67	0.18
5001 - 10000	990392	138	0.26	821377	113	0.30
10001 & above	54876430	216	0.41	55568591	164	0.44
Total	65816291	53060	100.00	64618182	37579	100.00

12. Dematerialization of Shares

The shares of the Company are in compulsory demat segment and are available for trading in both the depository systems, namely, National Securities Depository Limited and Central Depository Services (India) Limited. Shares dematerialized upto March 31, 2007 are:

No. of Shares	% of	No. of	% of
	Shares	Shareholders	Shareholders
65220962	99.10	50288	94.78

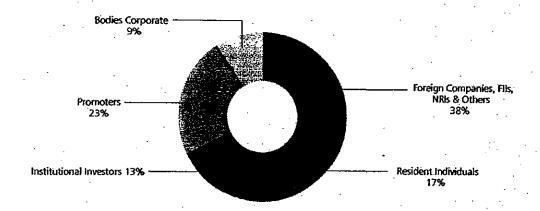
13. a) Shareholding Pattern as on March 31, 2007

etegory	No of Shares	Percentage of
	Held	Shareholding
Promoter Holding		
1. Promoters	1	
a) Indian Promoters	14982672	22.76
b) Foreign Promoters	Nil	Ni
2. Persons acting in concert	Nil	Nil
Sub-Total (1+2)	14982672	22.76

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·		
Category	No of Shares Held	Percentage of Shareholding
B. Non-Promoter Holding		-
3. Institutional Investors		
a) Mutual Funds	3535527	5.37
b) Banks, Financial Institutions, Insurance Companies (Central / State Govt. Institutions / Non-government Institutions)	4968879	7.55
c) Foreign Institutional Investors (FIIs)	9495796	14.43
Sub-Total (3)	18000202	27.35
4. Others	, , , , , , , , , , , , , , , , , , , ,	
a) Private Corporate Bodies	6177312	9.39
b) Indian Public (Resident Individuals)	10997946	16.71
c) Non Resident Indians / Overseas Corporate Bodies	413625	0.63
e) Foreign Companies	15244534	23.16
Sub Total (4)	32833417	49.89
Grand Total (1+2+3+4)	65816291	100.00

b) Shareholding Pattern Chart







Name of the Instrument		Total Issued	Converted as on 31/03/07	Cutstanding as on 31/03/07	Likely Conversion Date
a)	Warrants issued during 2006-07	50,00,000 nos	NIL	50,00,000 nos	On or before August 31,2008
b)	Foreign Currency Convertible Bonds (FCCBs) (issued during 2005-06)	USD 4,25,00,000 *	USD 2,27,90,000 *	USD 1,97,10,000 *	On or before November 03, 2010
c)	Foreign Currency Convertible Bonds (FCCBs) (issued during 2006-07)	USD 17,50,00,000 *	NIL	USD 17,50,00,000 *	On or before February 28, 2012

^{*} FCCBs are represented in value till the time they are converted into equity shares.

15. Legal Proceedings

There are a few pending cases relating to the disputes on the title of the shares. The Company has been made a party to the disputes but these, however, are not material in nature.

16. Share Transfer System

M/s Integrated Enterprises (India) Limited are the Registrar and Share Transfer Agents for servicing activities relating to both Physical and Electronic segments. The share transfer committee met 12 times during the year 2006-2007.

17. Unclaimed Dividends

Pursuant to Section 205 A of the Companies Act, 1956, the unclaimed dividend for the financial year 1998-99 was transferred to the Investor Education and Protection Fund (IEPF) in September 2006.

Dividend for the financial year 1999-2000 is due for transfer to IEPF in May 2007.

The dividends for the years from 2000-2001 onwards, which remain unclaimed for seven years will be transferred to investor Education and Protection Fund established by the Central Government under Section 205 C of the Companies Act, 1956 as and when due. Shareholders who have not encashed their dividends for these periods are requested to contact the Company immediately.

18. ECS Mandate

To service its investors better, the Company requests all shareholders who hold shares in electronic form to update their bank particulars with their respective depository participants immediately. Shareholders holding shares in physical form may kindly forward the bank particulars to the Company's Registrar and Share Transfer Agent.

19. Plant Locations

- a) Active Pharmaceutical Ingredient Facilities
- i) Alathur Works
 Plot Nos. 85-87, 98-100,
 126-131, 138-151 and 159-164
 SIDCO Industrial Estate, Alathur
 Kancheepuram Dist, Pin 603 110
 Tamil Nadu, India
- ii) Aurangabad Works
 L-8 & L-9 MIDC Industrial Area
 Waluj, Aurangabad District,
 Pin 431 136
 Maharashtra, India

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 i) A10/A11, SIDCO Industrial Estate Alathur, Kancheepuram Dist, Pin 603 110
 Tamil Nadu, India

Form) Facilities

- ii) Plot Nos. B3–B6, B11–B14 and B15–B18 SIPCOT Industrial Park, Irungattukottai Sriperumbudur (Tk.), Pin 602 105 Tamil Nadu, India
- iii) B-77, SIDCO Industrial Estate Alathur, Kancheepuram Dist, Pin 603 110 Tamil Nadu, India
- 20. Research and Development Centres
- a) Plot No. 476/14,
 Old Mahabalipuram Road,
 Sholinganallur
 Chennai 600 119
 Tamil Nadu, India

Plot Nos.821–823 & 831–833,
 SIPCOT Industrial Park,
 Irungattukottai Sriperumbudur (Tk.),
 Pin 602 105, Kancheepuram Dist
 Tamil Nadu, India

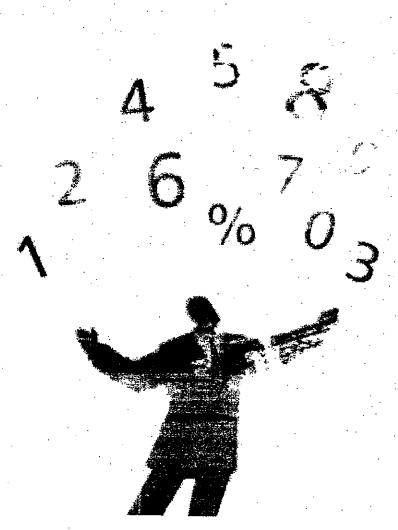
- 21. Investor Contacts
- a) Corporate Communications
 Mr Ch Ram
 Head, Corporate Communications & Investor Relations
 Phone: 91-44-28244908;
 Fax: 91-44-28211002
 E-mail: ram@orchidpharma.com
- b) Investor Correspondence Mrs Bhoomijha Murali Deputy General Manager – Secretarial & Legal Phone: 91-44-28244302; Fax: 91-44-2827 5960

E-mail: bhoomija@orchidpharma.com

c) Compliance Officer Mr L Chandrasekar Vice President – Internal Audit & Secretary Phone: 91-44-28284232/28244301; Fax: 91-44-2827 5960 E-mail: Ics@orchidpharma.com

d) Registrar and Share Transfer Agent Integrated Enterprises (India) Limited 2nd Floor, Kences Towers, No.1 Ramakrishna Street, North Usman Road, T. Nagar, Chennai - 600 017 Tamil Nadu, India Tel: 91-44-28140801 - 03, Fax: 91-44-28142479 E-mail: yesbalu@iepindia.com .

financial section



OCP00000645

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Auditors' Report

Report of the Auditors to the Members

- We have audited the attached Balance Sheet of Orchid Chemicals & Pharmaceuticals Limited (the Company) as at 31st March, 2007 and also the Profit and Loss Account of the Company for the year ended on that date annexed thereto and the Cash Flow Statement for the year ended on that date. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.
- 2. We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
- As required by the Companies (Auditor's Report) order, 2003
 issued by the Central Government of India in terms of subsection (4A) of Section 227 of the Companies Act, 1956, we
 annexe hereto a statement on the matters specified in
 paragraphs 4 and 5 of the said Order.
- Further to our comments in the Annexure referred to above, we report that:
 - a) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit;
 - b) In our opinion, proper books of account as required by law have been kept by the Company so far as appears from our examination of those books;
 - c) The Balance Sheet, Profit and Loss Account and Cash

- flow statement dealt with by this report are in agreement with the books of account;
- d) In our opinion, the Balance Sheet, Profit and Loss Account and Cash flow statement dealt with by this report comply with the accounting standards as referred to in sub-section (3C) of Section 211 of the Companies Act, 1956;
- e) On the basis of written representations received from the directors, as on 31st March 2007, and taken on record by the Board of Directors, we report that none of the directors is disqualified as on 31st March 2007 from being appointed as a director in terms of clause (g) of sub-section (1) of Section 274 of the Companies Act, 1956;
- f) In our opinion and to the best of our information and according to the explanations given to us, the said accounts give the information required by the Companies Act, 1956, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:
 - In the case of the Balance Sheet, of the state of affairs of the Company as at 31st March 2007;
 - ii) In the case of the Profit and Loss Account, of the profit for the year ended on that date; and
 - In the case of Cash Flow Statement, of the cash flows for the year ended on that date.

For SNB Associates Chartered Accountants

Place: Chennai Date: May 3, 2007 S Lakshmanan Partner Membership No. 20045



Annexure to Auditors' Report

Referred to in Paragraph 3 of our Report of even date:

- 1. The Company has maintained proper records showing full particulars including quantitative details and situation of its fixed assets. According to the information and explanations given to us, most of the fixed assets have been physically verified by the Management during the year. In our opinion, the frequency of such physical verification is reasonable having regard to the size of the Company and the nature of its assets. No material discrepancies were noticed on such verification as compared to the available records. There was no substantial disposal of fixed assets during the year.
- Physical verification of Inventory has been conducted by the Management at reasonable intervals. The procedures for physical verification of stocks followed by the Management are reasonable and adequate in relation to the size of the company and nature of its business.
 - The company is maintaining proper records of inventory and no material discrepancies were noticed on physical verification.
- 3. As informed to us, the company has granted unsecured loans to three wholly owned subsidiary companies, which is covered in the register maintained under Section 301 of the Companies Act, 1956, amounting to Rs. 1365.84 Jacs.
- 4. The Company has not taken any loans, secured or unsecured from companies, firms or other parties covered in the register maintained under Section 301 of the Companies Act, 1956.
- 5. In our opinion and according to the information and explanation given to us, there is adequate internal control system commensurate with the size of the Company and the nature of its business for the purchase of inventory and fixed assets and for the sale of goods and services. During the course of our audit, no major weakness has been noticed in the internal control system.

- 6. In our opinion and according to the information and explanation given to us, the particulars of contracts or arrangements referred to in Section 301 of the Companies Act, 1956 have been entered in the register required to be maintained under that section.
 - The transactions made in pursuance of such contracts or arrangements have been made at prices which are reasonable having regard to the prevailing market prices / Joint venture agreements at the relevant time.
- 7. The company has not accepted any deposits from the public.
- 8. In our opinion, the company has an internal audit system. commensurate with the size and nature of its business.
- 9. We have broadly reviewed the books of account maintained by the Company, pursuant to the rules made by the Central Government for the maintenance of the Cost Records under Section 209(1)(d) of the Companies Act, 1956 and are of the opinion that prima facie the prescribed accounts and records have been made and maintained.
- 10. The company is generally regular in depositing undisputed Statutory Dues including Provident fund, Investor education and protection fund, Employees' state insurance, Income-Tax, Sales-Tax, Wealth-Tax, Service-Tax, Custom duty, Excise duty, Cess and any other statutory dues applicable to it with the appropriate authorities. According to the information and explanations given to us, no undisputed amounts payable in respect of sales-tax, Income-Tax, Wealth Tax, Service Tax, Custom duty, Excise duty and Cess were outstanding at the year end for a period of more than six months from the date they became payable.

According to the records of the company, there are no disputed amounts that have not been deposited with appropriate authorities on account of Income Tax, Sales-tax, Wealth Tax, Service-Tax, Custom duty, Excise duty and Cess except the following:

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	the second second			
Name of the Statute	Nature of the Dues	Period to which the amount relates	Amount Rs. Lakhs	Forum where the dispute is pending
Central Excise Act, 1944	Excise Duty	1999-00 to 2000-01	111.96	Customs, Excise and Gold (Control)
	,	2000-01 & 2001-02	37.12	Appellate Tribunal Chennai.
•		. 2004-05	124.77	Commissioner of Central Excise, Chennai.
			0.54	Commissioner of Central Excise (Appeals) Chennai.
		2005-06	0.59	Commissioner of Central Excise (Appeals) Chennai.
•			91.53	Commissioner of Central Excise, Chennal.
			11.57	Joint Commissioner of Central Excise, Chennai,
,			1.70	Deputy Commissioner of Central Excise and Customs, Aurangabad.
		2006-07	1.93	Assistant Commissioner of Central Excise, Chennai.
inance Act, 1994 (Chapter V)	Service-Tax	June 1997 to 2001-02	42.26	Commissioner of Central Excise, Chennai.
famil Nadu Tax on	Electricity Cess	2003-04 64.64		,
Consumption or sale of	i i	2004-05	74.27	Honourable High court of Chennal
Electricity		2005-06	75.64	
Act, 2003		2005-07	79.58	
ncome-Tax Act, 1961	Income-Tax	AY 1997-98	53.82	Income-Tax Appellate Tribunal, Chennai.
ncome-Tax Act, 1961	Interest on Income Tax	AY 1997-98 & 98-99	68.88	Commissioner of Income Tax, Chennai.
ncome-Tax Act, 1961	Income-Tax	AY 2001-02 & 2002-03	11.58	Income-Tax Appellate Tribunal, Chennai.
ncome-Tax Act, 1961	Income-Tax	AY 2004-05	38.39	Income-Tax Appellate Tribunal, Chennal.
ncome-Tax Act, 1961	Income-Tax	AY 2004-05	8,13	Commissioner of Income-Tax, Appeal, Chennai.

- 11. The company has no accumulated losses at the end of the financial year and it has not incurred any cash losses in the current and in the immediately preceding financial year.
- 12. Based on our audit procedures and on the information and explanations given by the management, we are of the opinion that the company has not defaulted in payment of dues to financial institutions and banks. The company does not have any borrowings by way of debentures.
- 13. The company has not granted any loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
- 14. In our opinion and according to the information and explanations given to us, the nature of activities of the company does not attract any special statute applicable to chit fund and nidhi / mutual benefit fund/societies.
- 15. Based on our examination of records and the information and explanations given to us, the company has not dealt / traded in any shares, securities, debentures and other investments during the year.
- 16. According to the information and explanations given to us, the company has not given any guarantee for loans taken by others from banks or financial institutions.
- The term loans obtained by the company were applied only for the purposes for which the loans were obtained.
- 18. According to the cash flow statement and other records examined by us and the information and explanations given

- to us on an over all basis, the funds raised on short-term basis, prima facie, have not been used during the year for long-term investment other than temporary deployment pending application.
- 19. The company has made preferential allotment of 4965000 warrants, to promoters covered in the register maintained under Section 301 of the Companies Act, 1956, each warrant convertible into one equity share of Rs. 10 each within 18 months from the date of issue. The above issue of warrant is in accordance with SEBI guidelines.
- The company did not have any outstanding debentures / bonds during the year for which creation of securities is required.
- 21. During the year the company raised funds through issue of Foreign Currency Convertible Bonds amounting to Rs. 77358.75 lakhs. The end use of the money raised has been disclosed and verified.
- 22. Based on the audit procedures performed and information and explanations given by the management, we report that no fraud on or by the company has been noticed or reported during the course of our audit.

For SNB Associates Chartered Accountants

Place: Chennai Date: May 3, 2007 S Lakshmanan *Pärtner* Membership No. 20045



Balance Sheet as at March 31, 2007

		Schedule	1	31.03.2007	T	(Rs. Lakh
<u></u>	SOURCES OF FUNDS	Scriedble	 	31.03.2007		31.03.2006
Ā	Shareholders' Funds		<u> </u>		 -	
_	Share Capital	A		6581,63	ļ <u>.</u>	5454 00
_	Share application money pending allotment		 	0381.03		6461.82
	(Refer Note 11)			0.96	·	
	Reserves and Surplus	. В	 	43542.57		72040.70
В.	Loan Funds	· · · · · · · · · · · · · · · · · · ·		43342.37		72040.71
$\overline{}$	Secured Loans			68966.76	· · · · · · · · · · · · · · · · · · ·	
	Unsecured Loans		 	00300.76	<u> </u>	82655.85
	From Banks		 	9000.00		8500.00
-	Foreign Currency Convertible Bonds (Refer Note 7)	· ·		85224.57		11669.02
C.	Deferred Tax Liability (Refer Note 24)			9236.00		8006.00
	Total	· · · · · · · · · · · · · · · · · · ·		222552.49		189333.4D
H.	APPLICATION OF FUNDS					109353.40
D.	Fixed Assets	D		 , ;		-
	Gross Block	······	143181.65	-	125764.20	
	LESS Depreciation		44940.05		36774.35	
	Net block		98241.60		88989.85	
	Capital Work in Progress		45517.52		21638.79	
	Advance for capital items		9527.64		5278.61	
				153286.76	3270.01	115907.25
Ε.	Investments	· E	· ·	11570.80		9823.69
F.	Current Assets, Loans and Advances					3023.03.
	Inventories	F	60227.22		43807.72	
	Sundry Debtors	G	36425.13	 . —	32881.53	
	Cash and Bank Balances	н	11225.76		1129.59	· · · ·
	Other Current Assets	ī	14.92		50.74	
	Loans and advances	J	13140.42		9803.51	
			121033.45		87673.09	
<u>3.</u>	Less Current Liabilities and Provisions	K	63338.52		24070.63	
				57694.93		63602.46
	Total			222552.49		189333.40
	Notes on accounts	Q				

As per our report of even date		On behalf of the Bo	yard .
For SNB Associates	R Narayanan		K Raghavendra Rao
Chartered Accountants	Chairman		Managing Director
S Lakshmanan	Dr C Bhaktavatsala Rao	Dr M R Girinath	Dr ! Seetharam Naidu
Partner	Deputy Managing Director	Director	Director
Place: Chennai Date: May 3, 2007	D S Bhaskara Raju Chief Financial Officer		L Chandrasekar

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Profit and Loss Account for the year ended March 31, 2007

_					(Rs. Lakh
_	Schedule		31,03,2007	·	31.03.2006
1	INCOME				37.03.2000
_	Sales & Operating Income	93417.55	 	88876.64	
_	Less: Excise Duty	2125.77	91291.78	1530.93	87345.71
_	Other Income M		155.98	1550.33	132.73
			91447.76		87478.44
11	EXPENDITURE	- 	31447.70	<u> </u>	07470.44
	Material Cost N		31055.55		36407.03
_	Manufacturing, Selling & Other Expenses O		31255.65		25011.35
Ξ	Interest and Finance charges P		9830.65		8701.32
_	Depreciation / Amortisation		8246.73		8297.57
		- 	80388.58		78417.27
111	Profit		- 00000.00		70417.27
_	Profit for the year before tax		11059.18		9061_17
	Less: Provision for tax		11033.18		9001.17
	Current Taxes	 			
	Fringe Benefit Tax	166.00	~	181.00	· · · · · · · · · · · · · · · · · · ·
	Deferred Taxes (Refer Note 24)	1230.00	1396.00	590.00	771.00
_	Profit for the year after tax	7.55.00	9663.18	390.00	8290.17
	Balance brought forward	~ [4519.18		2748.36
	Balance Available for Appropriation		14182,36		11038.53
IV	Appropriations		77102.20		11000,33
	Excess provision of dividend & tax thereon of		-		<u> </u>
	earliers year written back		(268.09)	1	
	Proposed Dividend	2940.54	1200.03/	2209.47	
	Tax on proposed dividend	499.74	3440.28	309.88	2519.35
	Transfer to General Reserve	1	7000.00	303.00	4000.00
	Balance carried to Balance Sheet		4010.17		4519.18
V	Earnings per Share (Equity shares of Rs. 10/- each fully paid up)		- 10 10:17		4313,10
	Basic (Rs.)		14.70		14.85
	Diluted (Rs.)		13.23		13.64
	Notes on Accounts Q				13.04

As per our report of even date		On behalf of the Boar	d ·
For SNB Associates	R Harayanan		K Raghavendra Rao
Chartered Accountants	Chairman		Managing Director
S Lakshmanan	Dr C Bhaktavatsala Rao	Dr M R Girinath	Dr I Seetharam Naidu
Partner	Deputy Managing Director	Director	<i>Director</i>
Place: Chennai	D S Bhaskara Raju		L Chandrasekar
Date: May 3, 2007	Chief Financial Officer		VP – Internal Audit & Secretary



				(Rs. Lakh
	<u> </u>	31.03.2007		31.03.200
Schedule Af Share Capital a				T
Authorised	1	1	ļ	ļ
10,00,00,000 (Previous year 9,00,00,000) Equity Shares of Rs. 10/- each	 	10000.00	 	0000.00
Issued, Subscribed and Paid-up		10000.00	 	9000.00
6,58,16,291 (Previous year - 6,46,18,182) Equity Shares		6581.63	 	6461.82
of Rs. 10/- each fully paid.		}		
Of the above			1	
1,73,76,940 Equity Shares of Rs. 10/- each are allotted as fully paid up			j	
by way of bonus shares by Capitalisation of reserves.	·		İ	·
Bereit Perilipantan and a company of the company of	· · · · · · · · · · · · · · · · · · ·			
Chedule Br. Reserves & Surplus	l .	1	<u> </u>	
Capital Reserve		ĺ	ļ	Į.
- Opening Balance				
- Additions during the year (Ref Note 23(b))	805.54	805.54		
Securities Premium Account				
- Opening Balance	- 57430.04		34874.35	
- Additions during the year	2788.21		26016.11	
	60218.25		60890.46	
Deductions during the year			00000.70	<u> </u>
- Issue of Bonus shares			1737.69	
Provision for premium on redemption of FCCB (Refer Note 7(c))	36371.36		458.68	· · · · · · · · · · · · · · · · · · ·
- GDR/FCCB issue expenses adjustment	2211.52	21635.37	1264.05	57430.04
General Reserve			7204203	27430.04
- Opening Balance	10091.49	· · · · · · · · · · · · · · · · · · ·	6091.49	·
- Add: Transfers during the year	7000.00	17091,49	4000.00	10091.49
Surplus in Profit & Loss Account	· · · · · · · · · · · · · · · · · · ·	4010,17	-1000.00	4519.18
		43542.57		72040.71
				72040.71
Schedule Co. Sexured Loans				· · · · · ·
rom Banks	•	·		
Rupee Term Loans	38890.64		46067.15	
Rupee & Foreign Currency Packing Credit & Advance against Bills	29865.47		30588.39	
		68756.11	20300.39	76655,54
rom Financial Institutions		30, 30.11		/0033,34
Rupee Term Loans		<u>-</u> -	5906.25	EDOC OF
				5906.25
lire Purchase Finance		210.65	-	94.06

Term loan from Bank of Baroda for NPNC project is secured on the assets of NPNC project at Aurangabad and Irungattukottai. All other Rupee Term Loans and Foreign Currency Term Loans from Banks are secured by Pari Passu charge by way of joint mortgage on immovable and movable assets situated at Factory premises at SIDCO Industrial Area, Alathur, MIDC Industrial Area, Aurangabad, SIPCOT Industrial Park, Irungattukottai and R&D premises at Sholinganallur and current assets, subject to prior charges created/ to be created on current assets in favour of bankers and financial institutions for securing working capital borrowings. Total term loans aggregating Rs. 20000 lakhs are additionally secured by personal guarantees of Shri K Raghavendra Rao, Managing Director of the Company.

Packing Credit and Advances against bills from Banks and Working Capital Loans from Banks are secured by first charge on all current assets namely, Stocks of Raw materials, Semi-finished & Finished Goods, Stores and Spares not relating to Plant & Machinery (Consumable Stores and Spares), Bills Receivable, Book Debts & all other movable property both present and future excluding such movables as may be permitted by the banks/ financial institutions from time to time and by second charge on immovable properties after charges created/ to be created on immovable assets in favour of Financial Institutions/Banks for securing Term Loans. The borrowings from banks are additionally secured by personal guarantee of Shri K Raghavendra Rao, Managing Director of the Company.

Hirepurchase Loans are secured by the assets acquired through such loans.

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Schedules to the Accounts as at March 31, 2007

Sylve		(Rs. Lakhs)	はないと	ない。						HILLOND HONDEN	(Rs. Lakhs)
2 2	SI. No. Asset Description		Gross E	Gross Block (At Cost)	(1)		Depreciation	Depreciation/Amortisation	u	Written Dr	Written Down Value
	٠.	As at	Additions	Deletions	As at	Up to	For	δ	Up to	As at	As at
		1.4.2006	during	during	31,3,2007	31,3,2006	the year	Deletions	31.3.2007	31.3.2007	31.3.2006
			the year	the year							
-	1. Freehold land & Site										
	Development	1302.09	302.16	11.96	1592.29		'	,	ı	1503 30	000
2.	Leasehold land	643.05	181.10	,	824.15	1	39.04		39.04	785 11	50.2051
e,	Buildings	15141.22	1062.48	1	16203.70	1864,63	482.73	-	7347 36	ו אצבע את	13776 EQ
4	Plant & Machinery	91937.71	12357.26	63.18	104231.79	29654.24	6327.68	32.80	35949 12	73 58783	62303 43
κ	Factory Equipment	953.00	154.48		1107.48	430.42	101.60	1	547.07	475.46	613.60
ن		6211.17	708.46	,	6919.63	1078.57	313.29	-	1391.86	5577 77	5137 EN
7.		1532,14	361.01	90'0	1893.09	772.44	149.37	0.01	971.80	07170	750 70
86	Furniture & Fittings	1218.81	49.59	,	1268,40	369.75	73.87	•	643.62	07 170	07.60
9.		502.26	243.56	102.80	643.02	164.60	55.13	48.77	171 51	074.70	043.00
10.	Intangible Assets								2	10.17	337.00
	Acquired .						,	•			-
	Brands & Trademarks*	2202.60	575.56	1	2778.16	1430.04	459.71	-)	1000	. 00	-
	Internally Generated								5/:6001	000	96'7//
	DMF & ANDA **	4120.15	1599.79	1	5719.94	1009.66	244.31	. 1	1253.97	4465 97	3110.40
	Total	125764.20	17595,45	178.00	143181.65	36774.35	8246.73	81.03	44940.05	98241.60	88989.85
	Previous years figures	98082.47	28889.68	1207,95	125764.20	28555.46	8297.57	78.68	36774.35	88989,85	

* Represents value of registrations and value of applications filed Pending registration

** Refer Note 1 (b) (iv) of Schedule Q



	1	31.03.2007		31.03.2006
Schedule Et breaments	Nos.	Rs. In Lakhs	Nos.	Rs. In Lakh
(At cost)	4		7703.	10. 111 14.71
Long Term				
Trade, UnQuoted	 	_	<u> </u>	<u></u>
Subsidiary Companies	 	ļ		
Orchid Europe Limited, UK (previously known as Orchid Nutricare	ļ		•	
Limited) Common stock of GBP 1 each fully paid up				·
Less: Provision for diminution in value	10000	6.42	10000	6.47
cess: Provision for diminution in Value	ļ <u>.</u>	(6.42)		(6.42)
Octor Fermion Parallel		<u> </u>		
Ogna Farma, Brazil	<u>.</u>	.		
Common stock		115.35		87.89
Gene Arrays Inc., USA *#				,
Preferred stock with par value of US\$ 0.001	200000	91.10	200000	01 10
Less : Provision for diminution in value	200000	(91.10)		91.10
	 	(91.10)		
Orchid Pharmaceuticals Inc., USA	 	<u> </u>		91.10
Common stock of US\$ 1 each fully paid up	100100	44.777	400400	
Less: Provision for diminution in value	100100	44.72	100100	44.72
		(40.21)		(40.21)
Bexel Pharmaceutical Inc.**	· · · · · · · · · · · · · · · · · · ·	4.51	·	4.51
10,000,000 Series A & 48,93,740 Series B Convertible Preferred Stock	22024020	2000		
par value USD 0.001 per share and 9,001,090 Common	23894830	8883.24	13562500	6703.69
stock of par value USD 0.001 per share		· •	i	•
Orchid Pharmaceuticals SA (Proprietary) Limited, South Africa				
10000 shares each fully paid up	10000	4.49		." —
Orchid Research Laboratories Ltd.				
Fully paid up equity shares of Rs. 10/- each				<u> </u>
Less: Provision for diminution in value	14876600	1487.66	6550000	655.00
ESS. I TOMSOFT for Carmitation in Value	<u></u> -	(1297.06)	· · ·	(112.14)
		190.60		542.86
Joint Venture Companies		9198.19		7430.05
OChD Pietechnological Chemist Park	·			·
BChD Biotechnological Chemical Development Limited, UK.#				
Common stock of GBP 1 each fully paid up	31100	21.03	31100	21.03
ess: Provision for diminution in value		(21.03)		
NCDC O-shid Ph	·			21.03
NCPC Orchid Pharmaceuticals Company Ltd., China		2364.24		2364.24
ommon stock representing 50% interest in the company		<u> </u>		
	· · · · ·	2364.24		2385.27
Non – Trade, Quoted				
Bank of India				
ully paid up Equity shares of Rs. 10/- each	18600	8.37	18600	8.37
	•	8.37		8.37
Total Value of Investments		11570.80		9823.69

Market Value for quoted investment is Rs. 31.21 Lakhs. (Previous year Rs. 24.84 Lakhs) Units bought and sold during the year:

Chola Mutual Fund 118011966 units valued at Rs. 11837.64 Lakhs.

Reliance Mutual Fund 26009297 units valued at Rs. 2600 Lakhs.

represents companies under liquidation.

^{*} Each Preferred stock is convertible into One Common stock, at any time, at the option of the Company and will have voting rights equal to one common stock and has the same value as common stock.

^{**} Each Series A & B Preferred stock is convertible into One Common stock, at any time, at the option of the Company and will have voting rights equal to one common stock and has the same value as common stock.

				(Rs. Lakhs)
		31.03.200	7	31.03.2006
Some 17 Inventores (have note to a schedule for 1). Raw materials		11133.59		0,000
Stores and Spare parts		2012.7		9480.13 1867.09
Chemicals and Consumables		1134.83		796.06
Packing Materials		1255,91		948.45
Intermediates & WIP		36859.20		25914.43
Finished Goods		7240.42		4173.09
Traded Goods		590.54	l.	628.47
	·	60227.22		43807.72
Scheine Gr Sprice Debtors Debts more than 6 months (Unsecured)				
Considered Good		25408.29		19869.07
Considered Doubtful		1615.11		1615.11
Other Debts (Considered Good)				
Secured		1021.54		62.86
Unsecured		9995.30		12949.60
Less: Provision for Doubtful Debts		38040.24		34495.64
ECD. HOMBIGH TO DOUBTION SEEDS		1615.11		1615,1.1
		36425.13	<u> </u>	32881.53
Cash in Hand		9.37		8.67
Balances with scheduled Banks on Current Account				
Term Deposit Account		419.08		471.71
Margin Money Deposit		0.58		0.55
Share Application Money and Dividend Account		618.62		589.43
Balances with other Banks on		51.61		49.21
Current account (Ref Note 16)		10126.50		10.02
		11225.76		1129.59
Schediff (12 Other Eurrent Asset)				
SCHOOL FOR KINDER ASSESS				
Interest accrued on deposits and advances *		35.99	-	71.81
Less: Provision for Doubtful Interest accrued		35.99		71.81
reast Linearing to popular interest accused		21.07		21.07
*Includes dues from subsidiary Rs. 21.07 Lakhs (Previous year – Rs. 21.07 Lakhs)		14.92		50.74
	<u> </u>			
Considered Good				
Share Application Money Pending Allotment		30.00		
Advances recoverable in cash or kind or for value to be received * Advance Payment of Tax		11534.03		8657.78
Loans to Subsidiaries		918.31		863.50
Deposits				43.54
- With Government authorities		204.70		
- Others		291.78		165.89
Considered Doubtful		366.30		72.80
- Loan to Subsidiary		78.19		70 10
- Others	 -	491.10		78.19
	· -	13709.71		9881.70
.ess: Provision for Doubtful Advances		569.29		78.19
		13140.42		9803.51
Includes dues from subsidiary Rs. 1365.84 Lakhs (Previous year – Rs. 213.21 Lakhs)				
·	_ - -			



		(Rs. Lakhs
·	31.03.2007	31.03.2006
Schedule W. Corrent Babilities and provisions		
Acceptances	900,11	617.02
Sundry creditors (other than SSI) for		
- Capital Items	4641.66	1577.57
– Other supplies	11268.53	13254.45
- Expenses	3574.09	3332,89
[includes due to Directors – Rs. 375 lakhs (Previous year – Rs. 300 lakhs)		
Dues to Small Scale industrial undertakings (SSI) for		
- Other supplies	434.57	324.84
Investor Education and Protection Fund shall be credited		
by the following amounts namely:*		
- Unclaimed Dividend	51.61	49.21
- Share Application Money Refundable	5.42	5.42
Interest Accrued but not due	-	5.24
Premium payable on redemption of FCCBs (Ref Note 7(c))	36830.03	458.68
Other liabilities (Refer Note 23(d))	1746.77	1480.51
Provisions		
- For Taxation	445.45	445.45
- Proposed Dividend	2940.54	2209.47
- Tax on Proposed Dividend	499.74	309.88
	63338.52	24070.63

^{*} Represents balances in those accounts as of 31st March. Actual amount to be transferred to the Investor Education and Protection Fund will be determined on due dates.

Schedules to the Accounts for the year ended March 31, 2007

		1	. "
89532.90		83637.62	
2093.63	87439.27	1488.56	82149.06
	2.88		114.56
,	496.56		1000.24
516.23		293.85	
32.14	484.09	42.37	251.48
_	2434.56	2.54	446.21
	328.75		2479.50
			560.00
	105.67		344.66
	91291.78		87345.71
•		•	•
	_		21.52
	7		·
	14.94		10.26
	9.75		57.07
	131.29		43.88
	155.98		132.73
	1		
40064.93	· •	34405.08	
2205.68	42270.61	2034.14	36439.22
44099.62		30087.52	
30087.52	(14012.10)	28174.81	(1912.71)
7000, 77			
20007.22	2797.04		1880.52
	2093.63 516.23 32.14 40064.93 2205.68	2093.63 87439.27 2.88 496.56 516.23 32.14 484.09 2434.56 328.75 - 105.67 91291.78 14.94 9.75 131.29 155.98 40064.93 2205.68 42270.61	2093.63 87439.27 1488.56 2.88 496.56 516.23 293.85 32.14 484.09 42.37 2434.56 328.75

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Schedules to the Accounts for the year ended March 31, 2007

	. <u></u>	
		(Rs. Lakh:
TANKE CORP. FINANCE IN THE PARTY OF THE PART	31.03.2007	31.03.2006
Schedule OF Manufacturing Selbing and Other Expenses		
Power and Fuel	5202.05	
Conversion Charges		4321.94
Consumption of Stores, Spares & Chemicals	1337.97	1721.31
Factory Maintenance	2658.79	2126.26
Salaries and Wages	1633.92	1130.93
Contribution to Provident & other funds	6181.04	5361.22
Staff Welfare	812.51	515.29
Rent	779.02	644.67
Rates & Taxes	14.26	17.67
Insurance	73.76	147.49
Postage, Telephone & Telex	1317.84	1058.13
Printing & Stationery	144.16	153.68
Vehicle Maintenance	201.37	168.75
Research & Development Expenses (Refer Note 30)	46.87	45.63
Advertisement	3963.13	2652.10
Recruitement expenses	24.17	41.92
Auditors' Remuneration	86.41	45,28
Statutory Auditors (Refer Note 12)		
Cost Auditors	57.18	60.53
Travelling and Conveyance	12.79	10.12
Directors' Remuneration & perquisites (Refer Note 13)	865.55	752.88
Directors' Travelling	626.73	504.66
Inland		
Overseas	10.79	9.68
Directors' sitting fees	80.20	40,93
Loss on sale of fixed asset	18.20	19.80
Freight outward	47.24	16.64
Commission on Sales	1598.69	1492.54
Business Promotion and Selling Expenses	1058.34	1108.75
Consultancy & Professional Fees	1105.69	537.36
Exchange Rate Loss / (Gain)	1102.91	617.66
Loss / Provision for Diminution in value of Investments	(2247.64)	(865.96)
Provision for doubtful advances	1297.05	152.35
Bad debts and advances written off	491.10	
Miscellaneous expenses	38.23	
	1162.85	1023.13
.ess: Loss of profit – Insurance claim (Refer Note 20)	31803.17	25643.34
The state of the s	547.52	631.99
	31255.65	25011.35
idential "P" Interest and Finance Charges (Refer Note 14)		
The state of the s		.
nterest on Term Loans	4914.55	4021.05
Other Interest & Finance Charges	4916.10	4680.27
	9830.65	8701.32

On behalf of the Board

As per our report of even date For SNB Associates Chartered Accountants

R Narayanan Chairman

K Raghavendra Rao Managing Director

S Lakshmanan Partner Dr C Bhaktavatsala Rao Deputy Managing Director

Dr M R Girinath.
Director

Dr I. Seetharam Naidu Director

Place: Chennai Date: May 3, 2007

D S Bhaskara Raju Chief Financial Officer

L Chandrasekar VP – Internal Audit & Secretary



Schedules to the Accounts for the year ended March 31, 2007

1. Significant Accounting Policies

Schedule (Co. Notes on Accounts) e 3

a) Accounting Convention

The Financial Statements are prepared under historical cost convention. Revenues are recognised and expenses are accounted on their accrual with necessary provisions for all known liabilities and losses.

b) Fixed Assets

- fixed Assets are stated at the original cost inclusive of inward freight, incidental expenses related to acquisition and related pre-operational expenses.
- ii) Machinery spares which can be used only in connection with specific fixed assets and the use of which are irregular, are charged over the period of the life of such fixed asset, in accordance with Accounting Standard (AS 10).
- ii) Brands represent brands acquired by the company and includes IPR & Licences purchased for a consolidated consideration. The cost of brands, patents and trademarks are amortised over a period of 60 months from the month of acquisition.
- iv) Internally Generated Intangible assets DMF & ANDA DMF and ANDA costs represent expenses incurred on development of processes and compliance with regulatory procedures of the US FDA, in filing Drug Master Files ("DMF") and Abbreviated New Drug Applications ("ANDA"), in respect of products for which commercial value has been established by virtue of third party agreements / arrangements. This is in accordance with the requirements of Accounting Standard 26 of the Institute of Chartered Accountants of India.

The cost of each DMF / ANDA is amortised to the extent of recovery of developmental costs as applicable per terms of agreement or over a period of five years from the date on which the product covered by DMF / ANDA is commercially marketed, whichever is earlier.

v) Assets are depreciated on straight line basis at the rates specified in Schedule XIV of the Companies Act, except in respect of the following assets, where the useful lives reckoned in computing the depreciation for the year are different from those derived from the rates specified in Schedule XIV of the Companies Act, 1956. The revised useful life of the assets have been determined by the Management based on technical assessment.

Asset Categories

Reactors, Pipes, Pipe fittings, Valves, Motors, Pumps, Nitrogen Plant,
Gear Boxes, Cables and Centrifuges Evaporator (indigenous),
Jet aeration system(indigenous), Ventilation & Exhaust system,
HCL column, ETP(indigenous), scrubber, incenarator(indigenous).

- vi) Leasehold assets cost is amortised over the period of the Lease.
- vii) Depreciation on assets added/disposed off during the year is provided on pro-rata basis from the month of addition or up to the month of disposal, as applicable.
- viii) Impairment of assets

Management periodically assesses using external and internal sources whether there is an indication that an asset may be impaired. An impairment occurs where the carrying value exceeds the present value of future cash flows expected to arise from the continuing use of the assets and its eventual disposal. The impairment loss to be expensed is determined as the excess of the carrying amount over the higher of the assets net sales price or present value as determined above.

c) Borrowing Costs

Interest cost on qualifying asset being an asset that necessarily takes a substantial period of time to get ready for its intended use or sale, is capitalised at the weighted average rate of the funds borrowed and utilised for acquisition of such assets.

- d) Treatment of expenditure during construction period. Expenditure during construction period is included under capital work-in-progress and the same is allocated to the respective fixed assets on the completion of construction.
- e) investments

Investments considered long term are shown at cost. Diminution in the value of investments other than temporary are provided for. Current investments are valued at lower of cost and market value.

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Schedules to the Accounts

f) Inventories

- i) Stores & Spares
- ii) Raw Materials
- iii) Finished Goods @
- iv) Work in Progress & Intermediates @

Schedule "O" - Noteston Accounts (Cornel 1977) 198

- @ After adjustment of unrealised profits on inter division transfer.
- At weighted average cost
- At annual weighted average cost
- At lower of cost & net realisable value
- At lower of cost & net realisable value

g) Revenue Recognition

Sales are recognised on despatch of goods from the factory/ warehouse. Sales are net of returns, discounts and inter-division transfers. Service income is recognised as per contractual terms. In respect of composite contracts involving development and other activities, income is recognised on the basis of contractual terms after considering the quantum of work completed.

h) Retirement Benefits

Retirement Benefits are accounted on accrual basis. The company's liability towards the gratuity of employees is covered by a group gratuity policy with LIC and ICICI Prudential Life Insurance Company Ltd and the contribution to the fund is based on actuarial valuation carried out yearly as at 31st March. Provision for Leave Encashment has been made based on actuarial valuation as at the year end.

i) Translation of Foreign Currency items

- Foreign currency liabilities including liabilities on swap transactions, in respect of fixed assets, which have been acquired from a country outside India, have been restated in rupee terms at the exchange rates prevailing at the date of the Balance Sheet and the increase or decrease arising out of it is adjusted to the cost of fixed assets.
- Other foreign currency assets and liabilities are recognised at the rates applicable on the date of the Balance Sheet and the difference is charged to the Profit & Loss account.
- 3) All inter related transactions are recognised at common rates.
- 4) Exchange difference between the rates applicable at the date of the transaction and the rate actually realised (except in cases of inter-related transactions as stated above) has been shown as exchange gain/loss.
- 5) Transactions covered by forward contracts/options are stated at forward rates and the difference between forward rate and exchange rate at the date of the transaction has been recognised as income or expense over the life of the contract.

i) Subsidy on Fixed Assets

Subsidy received on fixed assets is credited to the cost of respective fixed assets.

Sales tax recoverable has been recorded on the basis of the claims submitted or in the process of being submitted, as per rules relating to EOU and which in the opinion of the Company are recoverable.

	· · ·	(Rs. Lakhs)
	As at 31.03.2007	As at 31,03,2006
Estimated amounts of contracts remaining to be executed on capital account		
(net of advances) and not provided for.	7767.90	9016.84
Other monies for which company is contingently liable:		3010.07
- Bills Discounted	20278.58	15126.75
- Unexpired Letters of Credit	10086.47	13447.77
- Bank Guarantees outstanding	276.99	1018.48
- Claims against the company not acknowledged as debts	2,0.55	1010.46
Cess on electricity generation pending before High Court of Chennai	294.13	214.55
Excise demands under dispute pending before Excise authorities	381.71	283,48
Service Tax dispute pending before High Court of Chennal	42.26	186.51

5. The Company has filed an appeal against the demand made by the Income Tax department amounting to Rs. 111.92 Lakhs (Previous year Rs. 103.78 Lakhs). No provision has been made as the company is confident of winning the appeal. No provision has also been made for demand of interest amounting to Rs. 68.88 Lakhs (Previous year Rs. 68.88 Lakhs) as petition has already been filed for waiver of interest.

Filed 08/28/2008



Schedules to the Accounts

- Committment to subscribe to the capital of Subsidiary Companies as at the date of Balance Sheet is Rs. Nil (Previous year Rs. 3226.98 Lakhs).
- 7. Foreign Currency Convertible Bond (FCCB)
 - a) The Company raised FCCB during the current year aggregating to USD 175 million (Rs. 77358.75 takhs) with an option to the investor to convert the FCCBs into equity shares of the Company at an initial conversion price of Rs. 348.335 per share at a fixed rate of exchange on conversion Rs. 43.93 = USD 1, at any time after April 9, 2007 and prior to February 18, 2012. Further the Company has an option of early redemption of these FCCBs in whole at any time on or after February 28, 2010 and prior to February 21, 2012, subject to certain conditions. Unless previously converted, redeemed or repurchased and cancelled, the FCCBs will be redeemed on February 28, 2012 at 142.77 % of their principal amount.
 - b) The Company raised FCCB during the year 2005-06 aggregating to USD 42.50 million (Rs. 19284.50 Lakhs) including a green shoe option of USD 5 million (Rs. 2289.50 Lakhs) with an option to the investor to convert the FCCBs into equity shares or global depository receipts at an initial conversion price of Rs. 243.80 per share at a fixed rate of exchange on conversion Rs. 44.94 = USD 1. Out of the above, FCCBs amounting to US\$ 22.79 million (Rs. 10241.83 Lakhs) (including US\$ 6.25 million (Rs. 2808.75 Lakhs) during the current year 2006-07) have been so far converted.

Further, the Company has an option of early redemption of these FCCBs at any time after November .03,2006 subject to certain conditions. Unless previously converted, redeemed or repurchased and cancelled, the FCCBs will be redeemed on November 03, 2010 at 147.1688% of their principal amount.

The current status of above FCCB conversion into equity is as follows:

Particulars	FCCB Value	Number of	Increase in	Increase in Security
		Shares	Equity	Premium
	USD Million	in Lakhs	Rs. Lakhs	Rs. Lakhs
Conversion effected up to March 31, 2007	22.79	42.00	420.09	9821,71
	22.79	42.00	420.09	9821.71

c) Provision has been made for the entire premium payable on redemption of FCCBs amounting to Rs. 36371.36 Lakhs (Net of Rs. 458.68 Lakhs provided in 2005-06 on pro-rata basis) by debiting the Securities Premium account (SPA). In the event that the conversion option is exercised by the holder of FCCBs in the future, the amount of premium charged to SPA will be suitably adjusted in the respective years.

The debit to share premium account for premium on FCCBs and for issue expenses have been made on the gross value without adjusting any tax impact. Tax benefits accruing to the company on account of claiming such expenses will be credited to the premium account in the year in which the benefit is enjoyed by the company.

d) Even though the Company has provided for the premium on redemption of FCCBs as per note [c] above, the Company has also made provision for dividend in the books of account on the equity shares to be allotted upon conversion of FCCBs outstanding as at March 31, 2007, since the Company is obliged, as per SEBI guidelines, to pay dividend to those FCCB holders who convert their FCCB into equity after adoption of the financial statements and upto the book closure date.

		(Rs. Lakhs)
	31.03.2007	31.03.2006
Usage of funds raised through FCCBs		
Opening Balance	7.47	
Funds received	77358.75	37325.70
Add: Interest received	164.14	31.15
Less: Expenses of Issue/Exchange Fluctuations	2208.56	1626,02
	75321.80	35730.83
Repayment of Loans	60811,67	26990.57
Capital Expenditure/ Advances/ ANDA filings	4392.92	8732.79
Balance	10117.21	7.47

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Schedules to the Accounts

Assets acquired pending for registration in favour of the company. Freehold Land Fixed Assets include assets on Hire Purchase (Gross Block) Loans and Advances Include Convertible portion of Loans to joint venture company Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID—ESOP 99" scheme and pending allotment. Auditors' remuneration include the following: Audit fee Tax Audit fee For certification & other matters * Excluding Rs.44.90 Lakhs (Previous year — Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. Directors' Remuneration (including Managing Director's Remuneration) Salaries Contribution to funds Other Perquisites Commission	59.09 313.61 	31,03,200 129,3 160,0 238,9
Freehold Land Fixed Assets include assets on Hire Purchase (Gross Block) Loans and Advances Include Convertible portion of Loans to joint venture company Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID—ESOP 99" scheme and pending allotment. Auditors' remuneration include the following: Audit fee Tax Audit fee For certification & other matters * Excluding Rs.44-90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. Directors' Remuneration (including Managing Director's Remuneration) Salaries Contribution to funds Other Perquisites Commission	313.61 0.96	129.3 160.0
D. Fixed Assets include assets on Hire Purchase (Gross Block) D. Loans and Advances Include Convertible portion of Loans to joint venture company D. Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID—ESOP 99" scheme and pending allotment. 2. Auditors' remuneration include the following: Audit fee Tax Audit fee For certification & other matters * Excluding Rs.44.90 Lakhs (Previous year — Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) — Salaries — Contribution to funds — Other Perquisites — Commission Net Profit for Computation of Managing Director's Commission	313.61 0.96	160.0
O. Loans and Advances Include Convertible portion of Loans to joint venture company 1. Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID—ESOP 99" scheme and pending allotment. 2. Auditors' remuneration include the following: " Audit fee Tax Audit fee For certification & other matters * Excluding Rs. 44.90 Lakhs (Previous year — Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) — Salaries — Contribution to funds — Other Perquisites — Commission Net Profit for Computation of Managing Director's Commission	0.96	160.0
1. Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID-ESOP 99" scheme and pending allotment. 2. Auditors' remuneration include the following: " Audit fee Tax Audit fee For certification & other matters * Excluding Rs. 44.90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	0.96	
1. Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID-ESOP 99" scheme and pending allotment. 2. Auditors' remuneration include the following: " Audit fee Tax Audit fee For certification & other matters * Excluding Rs. 44.90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission		
in terms of options exercised under "ORCHID-ESOP 99" scheme and pending allotment. 2. Auditors' remuneration include the following: " Audit fee Tax Audit fee For certification & other matters * Excluding Rs. 44.90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission		
Audit fee Tax Audit fee For certification & other matters * Excluding Rs.44-90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	2005.03	
Audit fee Tax Audit fee For certification & other matters * Excluding Rs.44-90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	2006-07	2005-0
Tax Audit fee For certification & other matters * Excluding Rs.44.90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission		
* Excluding Rs.44.90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	39.33	39.2
Excluding Rs.44-90 Lakhs (Previous year – Rs. 38.57 Lakhs) for services rendered in connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) — Salaries — Contribution to funds — Other Perquisites — Commission Net Profit for Computation of Managing Director's Commission	8,42	8.4
connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	9,43	12.8
connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) — Salaries — Contribution to funds — Other Perquisites — Commission Net Profit for Computation of Managing Director's Commission	57.18	60.5
connection with GDR/FCCB issue. 3. Directors' Remuneration (including Managing Director's Remuneration) - Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission		
- Salaries - Contribution to funds - Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	Ì	
Contribution to funds Other Perquisites Commission Net Profit for Computation of Managing Director's Commission		<u> </u>
- Other Perquisites - Commission Net Profit for Computation of Managing Director's Commission	138.00	114.0
- Commission Net Profit for Computation of Managing Director's Commission	16.56	13.6
Net Profit for Computation of Managing Director's Commission	97.17	76.9
Net Profit for Computation of Managing Director's Commission	375.00	300.0
Net Profit for Computation of Managing Director's Commission	626.73	504.6
		304.0
Profit for the year before taxation as per Profit & Loss Account	11059.18	9061.1
Add: Directors' Remuneration	626.73	504.6
Loss on sale of Fixed Assets	47.24	16.6
Provision for Doubtful debts / Advances	491.10	70.0
Provision for Diminution in value of investment	1297.05	152.3
	13521.30	9734.82
Less: Profit on sale of Fixed Assets	9.75	57.07
Net Profit	13511.55	9677.75
.a) Other Interest and Finance Charges is after crediting interest receipts	41.90	29.12
TDS on interest receipts	9.64	8.69
b) Amount of interest capitalised	2581.71	
a) Factory Maintenance includes	2301.71	1585.32
- Repairs & Maintenance - Plant & Machinery	528.43	222.57
- Repairs & Maintenance - Building		333.92
b) Consumption of Stores, Spares and Chemicals include Stores &	115.19	71.37
Spares issued for maintenance	586.85	620.19



Schedules to the Accounts

	·		(Rs. Lakhs
		2006-07	2005-06
during the year with banks other than	maximum amount outstanding at any time Scheduled Banks.		
Bank of America, New York	Balance as at March 31		2.12
	Maximum amount outstanding	2,12	18.56
ABN Amro Bank, Moscow	Balance as at March 31		0.43
	Maximum amount outstanding	28.99	136.92
Citibank NA, New York	Balance as at March 31	6.26	7.47
	Maximum amount outstanding	7.47	7827.19
JSC Vneshtorgbank, Moscow	Balance as at March 31	9,29	
	Maximum amount outstanding	47.34	
Bank of India, New Jersey	Balance as at March 31	10110.95	
	Maximum amount outstanding	75422.15	

17. a. The names of small scale industrial undertakings to whom dues are outstanding for more than 30 days (as certified by the management)

AARCO Engineering Products Pvt Ltd, Abasi Engineering Works, Aditya better containers Pvt Ltd, Arvind Pipes & Fitting industries, Awanti Clinic & Nursing Home, Contec Airflow (E) Pvt Ltd, Doshi Engineering Works, GP Fitwell Systems P ltd, Grand Polycoats Company P Ltd, Hyderabad Ammonia & Chemicals, Industrial Fabrics Madras, Leeds kern, Mysore Ammonia P Ltd, Nandu Chemical Pvt Ltd, Redhex Corrosion management co, R.Shati (P) Ltd, Shital Chemical Industries, Shree Electrical Industries, Southern Gasket products, Vasu Chemical Industries,

b. Amounts Due to Micro, Small and Medium Enterprises

The identification of Micro, Small and Medium Enterprises suppliers as defined under "The Micro Small and Medium Enterprises Development Act 2006" is based on the information available with the management. As certified by the Management, the amounts overdue as on 31st March 2007 to Micro, Small and Medium Enterprises on account of principal amount together with interest aggregates to Rs. Nil (Previous year Nil).

18. Derivative	Instruments and	l unhedged	Foreign a	штепсу	Exposure:

lRs.	Lakns

consure approved to and applea	ged Foreign contently exposu	re:			(Rs. Lakhs)
			2006-07		2005-06
) Derivative instruments that are		[Nil		Nil
 The purpose for which the ins acquired is for hedging the fo 	truments have been reign currency exposures				
 The Foreign Currency Exposure derivative instrument or other 	es that are not hedged by a				
•	Currency	Foreign Currency	Rs in Lakhs	Foreign Currency	Rs in Lakhs
 Receivables Outstanding 		. 1			· · · · · · · · · · · · · · · · · · ·
	USD .	100029089	43159.59	72150463	32108.68
	EURO	42717	24.55	88542	47.49
ii) Payables Outstanding	USD	5741317	2518.14	9495904	4276.96
	EUR	1280717	751.27	760262	414,34
	JPY .	28389587	105,92	78563316	301.60
	Others	_	160.30	-	5.30
iii) FCCB	USD	194710000	85224.57	25960000	11669.02

^{19.} Excise duty on finished goods has been accounted on removal of goods from factory, wherever applicable. Finished goods at factory have been valued at cost exclusive of excise duty and no provision has been made for excise duty on such goods. The above treatment has no impact on Profit & Loss account.

20. Insurance claim against material damage and claim against loss of profit as accepted by insurance company have been adjusted in the respective accounts as below:

Fixed Assets Rs. In Lakhs Fixed Assets - 105.54 Manufacturing, Selling & Administrative Expenses 547.52 631.99

The amount of claims accounted represents conservative amount which in the opinion of the company is minimum realisable.

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Schedules to the Accounts

21.a) Related Party Transactions

In accordance with Accounting Standard 18, the disclosure required is given below:

Schediale Q: Woter on Accounts Corpola 30

(Rs. Lakhs)

Nature of Transaction	Subsidiary	Joint venture	Key Management Personnel	Relatives of Key Management Personnel/ Companies in which they exercise significant influence
Finance - Equity Contribution	3044.16		_	-
	(2849.47)	(-)	(-)	(-)
- Loans & Advances	1352.26	_	-	
	(100.51)	(39.23)	(-)	(-)
 Shares allotted 	-			· .
	(-)	(-)	(-)	(424.37)
 Warrants allotted 	_		()	496.50
	(-)	(-)	(-)	(797.61)
Sale of goods	404.88	3240.03		-
<u></u>	(-)	(687.31)	(-)	(-)
Rendering of Services / Interest income/rent	120.36	48.69		
	(894.90)	(297.87)	(-)	(-)
Transfer of IPR				<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>
	(560.00)	(-)	Θ	()
Availment of Services/Rent	262.48	-		376.32
_ :	(-)	(-)	(-)	(251.73)
- Remuneration	_		Ref Note 13	(251.75)
Amounts due at the end of the year - Debit	1465.57	243.11		17,50
	(256.75)	(763.64)	(-)	(7.50)
Amounts due at the end of the year - Credit				1005.81
	(16.06)	(-)	(-)	(797.61)

(Figures in brackets are for previous year)

Names of the related parties and description of relationship.

1.	Subsidiary	Orchid Europe Limited, UK (Previously known as Orchid Nutricare Limited)
		Ogna Farma, Brazil
		Gene Arrays Inc., USA
	•	Orchid Pharmaceuticals Inc., USA
		Orgenus Pharma Inc., USA
		(Subsidiary of Orchid Pharmaceuticals Inc., USA)
		Orchid Research Laboratories Ltd., India
		Orchid Pharmaceuticals SA (Properitary) Limited, South Africa
		Bexel Pharmaceuticals Inc., USA
2.	Joint Venture	NCPC Orchid Pharmaceuticals Company Limited, China
		BChD Biotechnological Chemical Development Limited, UK
3.	Key Management Personnel	Mr K Raghavendra Rao, Managing Director
	·	Dr C Bhaktavatsala Rao, Deputy Managing Director
4.	Relatives of Key Management Personnel	Mrs R Vijayalakshmi (wife of Mr K Raghavendra Rao)
5.	Companies in which relatives of Key	Spectrasoft Technologies Limited, India.
	Management personnel exercise significant influence.	

All whole time directors have been considered as Key Management Personnel as they are involved in planning, directing and controlling the activities of the reporting enterprise.



Schedules to the Accounts

Information on Lawrence and	T	(Rs. Lak
Information on Loans & Advances as per clause 32 of the listing Agreement	Balance as on 31-03-2007	Maximum amou outstandin during the yea
Subsidiary — Orchid Europe Limited, UK (Previously known as Orchid Nutricare Limited)	242.26	242.2
Bexel Pharmaceuticals Inc., USA	720.20	720.2
Orchid Research Laboratories Ltd.	503.11	503.1
Joint Venture - BChD Biotechnological Chemical Development Limited, UK	_	546.2
NCPC Orchid Pharmaceuticals Company Limited, China	243,11	243.

22. In terms of the resolution passed by the company at the EGM dated October 21,1999 Employee Stock Option Scheme was extended to the employees of the company. Accordingly options totalling 15,00,000 Nos were given to the employees as per the scheme formulated under "ORCHID-ESOP 99" scheme by the compensation committee of the Board of Directors. Each option is convertible into one equity share of Rs. 10/- each at a price of Rs. 243.35 including premium for 6,00,000 Nos, Rs. 252 including premium for 3,07,925 Nos, Rs. 300.65 including premium for 2,92,075 nos and Rs. 339.25 options for 3,00,000 nos. No entries were passed in the books as the options were given at the market price prevailing on the date of issuance of options.

A fair and reasonable adjustment in share price/ the number of options outstanding was made by the Company in respect of the Employee Stock Options granted but not exercised by the Employees due to the corporate actions of issue of bonus shares during October 2005. The total number of options outstanding and the price was adjusted so that the total value and options available to each option holder remained the same.

Consequently the revised and adjusted prices per share are Rs. 162.24 (Rs.243.35), Rs. 168.00 (Rs. 252.00) and Rs. 200.44 (Rs. 300.65) respectively for 600000 Nos, 307925 Nos and 292075 Nos of options granted by the company.

For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject to the obtaining of the approval from the shareholders.

Pursuant to the exercise of options by employees the Allotment Committee of the Board at its meeting held on April 28, 2006, May 31, 2006, October 19, 2006 and January 19, 2007 allotted 3475, 3015, 4000 and 550 equity shares respectively to the employees. 1493632 Options were outstanding as at March 31, 2007 including the additional number of options adjusted, due to the bonus issue.

In terms of the resolution passed by the company at the AGM dated July 18,2005, 610,000 options were given to the eligible directors and employees as per the scheme formulated under "ORCHID-ESOP 2005" by the compensation committee of the 80ard of Directors held on August 12, 2006. Each option is convertible into one equity share of Rs. 10/- each at a price of Rs. 193.25 per share including premium.

- 23.a) In terms of the resolution passed by the Company on July 18, 2005, 25,00,000 warrants were allotted to the Promoter/Promoter Group(s) on August 02, 2005. These warrants were eligible for conversion at the option of the Warrants holders, into equity shares of the company at a price of Rs. 339.41 per share within a period of 18 months of the date of allotment.
 - b) The Promoters have not exercised 35,60,000 (which includes the adjustment of warrants an account of the bonus issue) warrants into equity Shares within the stipulated period and hence the warrants stands cancelled. Hence on February 2, 2007 the 10% advance paid by them amounting to Rs. 805.54 Lakhs on the unexercised warrants stands forfeited and credited to capital reserve.
 - c) In terms of the resolution passed by the Company at the EGM held on February 14, 2007, 50,00,000 warrants were allotted

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Schedules to the Accounts

Scientific TOT Notes on Accounts (Calabit Lease)

to the Promoter / Promoter Group(s), the relative(s) of the Promoter on March 01, 2007. These warrants are eligible for conversion at the option of the Warrants holders, into equity shares of the company at a price of Rs. 202.58 per share within a period of 18 months of the date of allotment.

d) Other liabilities include Rs. 1,012.90 Lakhs (Previous year 813.45 Lakhs) being the amount received as advance against the warrants issued to the promoter group, including Rs. 7.09 Lakhs (Previous year Rs. 15.84 Lakhs) from a Director.

24. Provision for Deferred tax for the year Rs. 1230 Lakhs (Previous year Rs. 590 Lakhs)

(Rs. Lakhs)

	As at 31.03.2007	As at 31,03,2006
Deferred Tax liability represents the following		
Timing Difference on account of Depreciation	16645.36	15236.31
Timing Difference on account of Losses	(6941.96)	(6681,58)
Timing Difference on account of provisions	(467.40)	(548.73)
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·

In accordance with clause 29 of Accounting Standard (AS22) Deferred tax Assets and Deferred tax Liabilities have been set off. Deferred tax assets in respect of unabsorbed depreciation and losses under tax laws have been recognised in view of the continued and consistant profitability of the Company.

25.Segmental Reporting

The Company was disclosing segment information classifying the business as Bulk drugs and Formulation till the financial year 2004-05. However in view of integration of bulk actives and formulation business, with the commissioning of Generics formulation facilities in 2005-06, the Company considers the business as one interrelated and integrated business of "Pharmaceutical products" and hence no separate segmental reporting is provided.

26. Additional information pursuant to the provisions of Paragraph 3, 4C & 4D of Part II of Schedule VI of the Companies Act, 1956.

A) Licensed & Installed Capacity (as certified by the management)

Class of Goods		Regd/ Licensed 2006-07	Installed 2006-07	Regd/ Licensed 2005-06	Installed 2005-06
Bulk Drugs and Intermed	liates				
Oral & Sterile	MT	900	800	900	800
Formulations	Nos Millions	748	748	748	748
				 	

Installed Capacities are calculated based on the product mix.

B) Value of Raw Materials, Spare Parts and components consumed during the year

	Year ended Ma	Year ended March 31, 2007		Year ended March 31, 2006	
	Percentage	Amount Rs Lakhs	Percentage	Amount Rs Lakhs	
Raw Materials				13 20.00	
Imported	78.50	31451.40	88.65	30500.37	
Indigenous	21.50	8613:53	11.35	3904.71	
	100.00	40064.93	100.00	34405.08	
Spare Parts Consumables & Packing Material			-		
Imported	55.67	3037.16	59.09	2367.58	
Indigenous	44.33	2418.67	40.91	1639,20	
	100.00	5455.83	100.00	4006.78	



Schedules to the Accounts

Earnings In Foreign Exchange during the year		(Rs. Lakh
	2006-07	2005-06
F.O.B. Value of Exports	70108.35	62101.36
Export of Services (net of withholding tax)	2937.96	4329,09
) C.I.F Value of Imports (on cash basis)		
Raw Materials	31428.70	32280.59
Capital Goods	5272.42	3347.28
Spare Parts Components, Consumables & Packing materials	6671,20	3594.55
Expenditure in Foreign Currency (on cash basis)		
Travelling Expenses	136.34	101.91
Interest & Bank Charges	1098.24	755.48
Consultancy Fees	525.11	191.87
Others	5537.98	2847.86
Dividend Remittances in Foreign Currency during the year		
Year to which dividend relates	2005-06 Final	2004-05 Final
No of Non Resident Share Holders	3	4
No of Shares held by Non Resident Share Holders	14189367	11988869
Gross Dividend (Rs. Lakhs)	425.68	479.55
Net Dividend (Rs. Lakhs)	425.68	479.55

27. Reconciliation of Basic and Diluted shares used in computing Earnings per share (Equity shares of Rs.10/- each fully paid-up)

(Rs. Lakhs) For the year ended For the year ended 31.03.2007 31.03.2006 **Profit After Tax** Rs. 9663.18 8290.17 No. of Shares Outstanding Nos. 65816291 64618182 Weighted Average Number of shares 65733282 55814393 Earning per Share - Basic Rs. 14.70 14.85 No of warrants & options allotted 32201732 8139778 Total No. of Equity shares to compute diluted EPS Nos. 73061369 60784877 Earning per Share - Diluted Rs. 13.23 13.64

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Schedules to the Accounts

Sabelue: Q: Notes on Accounts (Comps) 28. Disclosure as per requirements of Accounting Standard 26

·		As at	As at
		31.03.2007	31.03.2006
ACQUIRED			<u>·</u>
- Brands & Trademarks		 	
Useful life		5 Years	5 Years
Gross Carrying Amount (Rs. Lakhs)	Opening	772.56	1210.00
	Additions	575.56	2.60
	Amortisation	459.71	440.04
	Closing	888.41	772.56
INTERNALLY GENERATED			
- DMF & ANDA (Refer Note 1 (b) (iv) of Sche	đule Q)		
Useful life		5 Years	5 Years
Gross Carrying Amount (Rs. Lakhs)	Opening	3110.49	1843.98
	Additions	1599.79	2276.17
	Amortisation	244.31	1009.66
	Closing	4465.97	3110.49

29. a) Details of Group Companies

Name of Subsidiary / Joint venture	Country	Type of holding	Percentage of Holding	l	Nature of Business
Orchid Europe Limited (Previously known as Orchid Nutricare Limited)	UK	Equity	100%	Subsidiary	Marketing
Ogna Farma	Brazil	Common stock	98.5%	Subsidiary	Marketing
NCPC Orchid Pharmaceuticals Company Limited	China	Equity	50%	Joint Venture	Manufacturing
8ChD Biotechnological Chemical Development Limited #	ÜK	Equity	50%		Research & Manufacturing
Bexel Pharmaceuticals Inc.*	USA	Convertible Preferred stock with equal voting rights as Common stock and Common stock.	@68.48%	Subsidiary	Research
Gene Arrays Inc. * #	USA	Convertible Preferred stock with equal voting rights as Common stock	66.7%	Subsidiary	Research
Orchid Pharmaceuticals Inc.	USA	Common stock	100%	Subsidiary	Marketing
Orgenus Pharma Inc.	USA			Subsidiary of Orchid Pharmaceuticals Inc., USA	· · · · · · · · · · · · · · · · · · ·
Orchid Research Laboratories Ltd.	India	Equity	. 100%	Subsidiary	Research
Orchid Pharmaceuticals SA (proprietary) Limited	South Africa	Equity	100%	Subsidiary	Marketing

^{*} Preferred stock has been considered as common stock for the purpose of calculating the percentage of holding since Preferred stock has the same voting rights as common stock.

[@] excluding 31.52% held through a wholly owned subsidiary

[#] Companies under liquidation



Schedules to the Accounts

b.) The Company's share of interest in Assets, Liabilities, Income		. (7.52.12.03)
Fixed Assets	31.03.2007	31.03.2006
Current Assets	3047.81	3135.78
Current Liabilities	3212,43	3522.02
Loans	2507.13	2761.44
Income	1689.00	1671.00
Expenses	6828.80	8256.00
г.феньез	7007.57	7860.78
Research and Development Expenses include		
Power and Fuel	131.24	282.13
onversion Charges	0.04	0.11
onsumption of Stores, Spares & Chemicals	803.05	530.71
alaries, Wages and Bonus	914.78	
ontribution to Provident & other funds	99.24	914.24
taff Welfare	95,54	109.76
ates & Taxes	5.20	53.94
nsurance	25.15	3.91
ostage, Telephone & Telex	11,96	28.22
rinting & Stationery	25.19	9:07
ehicle Maintenance	4.91	36.48
ecruitment expenses	10.41	5.52
ravelling and Conveyance	43.26	11.11
esting Charges	1242.31	44.35
onsultancy & Professional Fees	75.15	335.52
thers	475.70	37.51
		259.52
	3963.13	2662.10

- 31. In view of deferrment of date of implementation of revised AS15 by KAI, the new AS15 will be implemented from the financial year 2007-08. Accordingly the provision made in the first three quarters during the current year have not been considered.
- 32. The Central Government by an order under section 211(4) of the Companies Act, 1956 dt. 29.03.2007 has exempted the Company from the disclosure of quantitative details in compliance of para 3(i)(a), 3(ii)(b) and 3(ii)(d) of part if of Schedule VI of the Companies Act, 1956 for the financial year ending 31-03-2007.
- 33. Previous year's figures have been re-grouped wherever necessary to conform to current year's classification.

As per our report of even date		On behalf of the Boa	rd
For SNB Associates	R Narayanan		K Raghavendra Rao
Chartered Accountants	Chairman		Managing Director
S Lakshmanan	Dr C Bhaktavatsala Rao	Dr M R Girinath	Dr I Seetharam Naidu
Partner	Deputy Managing Director	Director	Director
Place: Chennai	D S Bhaskara Raju		L Chandrasekar
Date: May 3, 2007	Chief Financial Officer		VP – Internal Audit & Secretary

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Balance Sheet Abstract and Company's General Business Profile

I.	Registration Details			,
	Registration No.	2 2 9 9 4	State Code	1 8
	Balance Sheet Date	3 1 0 3 7	-] .	
		Date Month Year	•	•
IL.	Capital Raised during	the year (Amount in Rs. Thousands)		
***	Public Issue	11 5 2 1	Rights issue	NIL
	Bonus Issue	NIL	Private Placement	4 6 0
HI.	,	Boutaness Land		1 14 6 0
HI.		on and Deployment of Funds (Amount in		2 2 5 5 2 4 9
	Total Liabilities	5 5 2 4 9	Total Assets	2 5 5 2 4 9
	Sources of Funds			- Valley
	Paid-up Capital	6 5 8 1 6 3	Reserves & Surplus	3 5 4 3 5 3
	Secured Loans	8 9 6 6 7 6	Unsecured Loans	3 4 2 2 4 5 7
	Deferred Tax Liability	923600		· · · · · · · · · · · · · · · · · · ·
	Application of Funds		•	
	Net Fixed Assets	2 3 2 8 6 7 6	Investments	21157080
٠,	Net Current Assets	7 6 9 4 9 3	Misc. Expenditure	NIL
	Accumulated Losses	MAN NIL	·.	
IV.	Performance of Comp	any (Amount in Rs. Thousands)	•	,
	Turnover	9 7 2 9 1 7 8	Total Expenditure	0-38858
	Other Income	1 5 5 9 8	•	
	Profit/Loss before Tax	1 0 5 9 1 8	Profit/Loss after Tax	2 2 9 6 6 3 1 8
:	Earnings Per Share in Rs.	1 4 . 7 0	Dividend	3 0 %
v. .	Generic Names of Thre	ee Principal Products / Services of Compa		BANKS I. J. J. V R
	Item Code No. (ITC Cod			•
	4 9 4 1 .	1 0	PHALOS	PORINS
	2 9 4 1	90 00	EPHALOS	PORINS
	29 2 2	00	BULLER DE	UGS
	· ·		On behalf of the Bo	arri
	•		On Basion of the be	
		R Narayanan Chairman	``,	K Raghavendra Rao
		Senantinus		Managing Director
		Dr C Bhaktavatsala Rao	Dr M R Girinath	Dub Calash Blot h
		Deputy Managing Director	Director	Dr I Seetharam Naidu <i>Director</i>
	Chennai May 3, 2007	D S Bhaskara Raju	• .	L Chandrasekar
DOTE:	IVIOJ J, ZUUI	Chief Financial Officer		VP - Internal Audit & Secretary



Cash Flow Statement for the year ended March 31, 2007

	(Rs. Ləkh:
31.03.2007	31.03.2006
11000 10	0054.47
11039.18	9061.17
9345 73	
	8297.57
(14.94)	(10.26)
4707.05	. (894.90)
	152.35
	(40.43
	242.40
	8701.32
31181.74	25509,22
	(14778.55)
	(4454.16)
	(5685.83)
	590.68
	(296.00)
	294.68
10856.26	294.68
	(17970.61)
59.50	114,14
(3044.16)	(1954.57)
14.94	10.26
(49175.31)	(19800.78)
100,24	7996.90
1012.90	. 805,54
	18041.20
(722.92)	6164.12
93626.42	28883.28
(106709.19)	(34543.61)
75146.60	11778.65
500.00	(00.0008)
98.45	(10.33)
	(10292.40)
	(1556.76)
	19266.59
	(239.51)
	730.45
	490.94
	, 450.54
11225.76	1129.59
	589.44
ו ות אות	
618.62 51.61	49.21
	11059.18 8246.73 (14.94) 1297.05 37.49 234.49 9830.65 491.11 31181.74 (8652.55) (16419.51) 4967.39 11077.04 (220.81) 10856.26 (46205.59) 59.50 (3044.16) 14.94 (49175.31) 100.24 1012.90 (722.92) 93626.42 (106709.19) 75146.60

Note: The above cash flow statement has been prepared under the 'Indirect Method' set out in Accounting Standard 3 issued by the Institute of Chartered Accountants of India.

As per our report of even date	•	On behalf of the Bo	pard
For SNB Associates Chartered Accountants	R Narayanan Chairman		K Raghavendra Rao Managing Director
S Lakshmanan Partner	Dr C Bhaktavatsala Rao Deputy Managing Director	Dr M R Girinath Director	Dr Seetharam Naidu Director
Place: Chennai Date: May 3, 2007	D S Bhaskara Raju Chief Financial Officer		L Chandrasekar VP – Internal Audit & Secretary

VP - Internal Audit & Secretary

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Consolidated Auditors' Report

Auditors' Report on Consolidated Financial Statements of Orchid Chemicals & Pharmaceuticals Limited and Its Subsidiaries, and Joint Ventures

To The Board of Directors
Orchid Chemicals & Pharmaceuticals Limited

- We have audited the attached Consolidated Balance Sheet
 of Orchid Chemicals & Pharmaceuticals Limited (the
 "Company") and its subsidiaries and joint ventures
 (together the "Group"), as at 31st March 2007 and the
 Consolidated Profit and Loss Account and the Consolidated
 Cash Flow statement for the year then ended. These
 financial statements are the responsibility of the company's
 management. Our responsibility is to express an opinion on
 these consolidated financial statements based on our audit.
- 2. We conducted our audit in accordance with the generally accepted auditing standards in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are prepared, in all material respects, in accordance with an identified financial reporting framework and are free of material misstatements. An audit includes, examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimate made by management, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.
- 3. a) The financial statements of a subsidiary which represents as at 31st March 2007, total liabilities (net) of Rs. 251.64 lakhs and total revenue for the year ended of Rs. 95.12 lakhs has been audited by other auditors and we have relied upon such audited financial statements for the purpose of our audit of the consolidated Financial Statements and our opinion, insofar as it relates to the amounts included in respect of such subsidiary is based solely on the report of the other auditors.
 - b) The audited financial statements for the year ended 31st March 2007 were not available in respect of five subsidiaries and two joint ventures of the company. Consequently, such subsidiaries and joint ventures have been accounted for in the Consolidated Financial Statements, on the basis of unaudited financial statements provided by the management of such subsidiaries and joint ventures.

The total assets (net) of Rs.1414.76 lakhs as at 31st March 2007 (Previous year Rs. 2086.04 lakhs) and total revenue for the year then ended of Rs. 7032.22 lakhs (Previous year Rs. 8390.55 lakhs) in respect of such subsidiaries and joint ventures are included in the consolidated Financial Statements.

Our opinion, in so far as it relates to the amounts included in respect of such subsidiaries and joint ventures, is based solely on the accounts as approved by the management of such subsidiaries and joint ventures.

- 4. Subject to our remark in Para 3 above:
 - a) We report that the Consolidated Financial Statements for the year ended 31st March 2007 is in accordance with the requirements of Accounting Standard 21 "Consolidated Financial Statements" and Accounting standard 27 "Financial Reporting of Interests in Joint Ventures", issued by the Institute of Chartered Accountants of India and on the basis of the separate audited financial statements of the Company and a subsidiary and management approved accounts of subsidiaries, and joint ventures included in the Consolidated Financial Statements.
 - b) In our opinion, on the basis stated in paragraph (2) above, and on the consideration of separate audit reports on and management approved accounts of individual financial statements of the company, its aforesaid subsidiaries and joint ventures, the consolidated financial statements give a true and fair view in conformity with the accounting principles generally accepted in India:
 - In the case of the Consolidated Balance Sheet, of the consolidated state of affairs of the Group as at 31st March 2007;
 - ii) In the case of the Consolidated Profit and Loss Account, of the consolidated results of operations of the Group for the year ended on that date; and
 - iii) In the case of the Consolidated Cash Flow Statement, of the consolidated cash flows of the Group for the year ended on that date.
- Attention is drawn to the remarks of the Auditors of a Subsidiary company given in Note No. 8 of the Notes to the Consolidated financial statements.

For SNB Associates Chartered Accountants

Place: Chennai Date: May 3, 2007 S Lakshmanan Partner Membership No. 20045



Consolidated Balance Sheet as at March 31, 2007

•	Schedule		31.03.2007	T	31.03.2006
I. SOURCES OF FUNDS	Janedole		31.03.2007		31.03.2006
A. Shareholders' Funds			 		<u> </u>
Share Capital	A		6581.63	<u> </u>	6461.82
Share application money pending allotment (Refe		 	0.96		0401.02
Reserves and Surplus	В	-	41927.63		71096.88
B. Loan Funds		 	11321103		71030.00
Secured Loans		 	70655,77	· · · · · · · · · · · · · · · · · ·	84326.86
Unsecured Loans		 	7 0000,77		04320.00
From Banks			9000.00		8500.00
Foreign Currency Convertible Bonds (Refer Note 9))		85224.57	<u>.</u>	11669.02
C. Deferred Tax Liability (Refer Note 22)			9236.00	 	8006.00
Total		1	222626.56	<u></u>	190060.58
I. APPLICATION OF FUNDS				· · · · · · · · · · · · · · · · · · ·	
D. Fixed Assets	D		-		
Gross Block		156337.91		136416.63	<u>.</u>
LESS Depreciation		45797.56		37373.04	:
Net block		110540,35	· · · · · · · · · · · · · · · · · · ·	99043.59	
Capital Work in Progress		45705.90		21668.50	
Advance for capital items		9598.39	165844.64	5343.05	126055.14
Investments			8.37		8.37
. Current Assets, Loans and Advances					· · · · · · · · · · · · · · · · · · ·
Inventories	E	61161.33		44814.95	
Sundry Debtors	F	38316.45		34857.48	
Cash and Bank Balances	G	11892.47		1625.91	
Other Current Assets	н	14.93		31.37	
Loans and advances	ı	11863.13		9459.94	
		123248_31		90789.65	
. Less Current Liabilities and Provisions	j	66474.76		26792.58	
			56773.55		63997.07
Total			222626.56		190060,58
Notes on accounts	P				

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As per our report of even date For SNB Associates Chartered Accountants	R Narayanan Chairman		K Raghavendra Rao Managing Director
S Lakshmanan	Dr C Bhaktavatsala Rao	Dr M R Girinath	Dr t Seetharam Naidu
Partner	Deputy Managing Director	Director	Director
Place: Chennai	D S Bhaskara Raju	VP-	L Chandrasekar
Date: May.3, 2007	Chief Financial Officer		- Internal Audit & Secretary

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Consolidated Profit and Loss Account for the year ended March 31, 2007

S	chedule		31.03.2007		31.03.2000
1. INCOME				1	31,03,2001
Sales & Operating Income	K	98508.07		95193.99	
Less: Excise Duty		2125.77	96382.30	1530.93	93663.06
Other income	<u>l</u>		35.62	1320.33	121.90
			96417.92		93784.96
II. EXPENDITURE			30777.32		22104.30
Material Cost	· M		35363.72		42841.09
Manufacturing Selling & Other Expenses	N		33360.47		27076.63
Interest and Finance charges	0		9929.15	- 	8784.48
Depreciation / Amortisation			8508.92		8581.76
			87162.26		87283.96
III. Profit			57.102.20		07203.30
Profit for the year before tax			9255.66		6501.00
Less: Provision for tax			- 3235.50		00.100
Current Taxes					
Fringe Benefit Tax		170.78		181.00	
Deferred Taxes (Refer Note 22)		1230.00	1400.78	590.00	771.00
Profit for the year after tax			7854.88	330.00	5730.00
Balance brought forward			216.61		1005.95
Balance available for appropriation			8071.49	- -	6735.96
V. Appropriations	-				
Excess provision of dividend &					
tax thereon of earlier years written back	1	-	(268.09)		
Proposed Dividend		2940.54	(200.05)	2209.47	
Tax on proposed dividend		499.74	3440.28	309.88	2519.35
Transfer to General Reserve			7000.00	303.00	4000.00
Balance carried to Balance Sheet		 	(2100.70)		
. Earnings Per Share (Equity shares of Rs. 10/- each fully p	aid up)		(2.100.70)		216.61
Basic			11.95		10.27
Diluted			10.75		
Notes on Accounts	P		19.75		9.43

As per our report of even date For SNB Associates Chartered Accountants	R Narayənan Chəirmən	On behalf of the Boai	K Raghavendra Rao Managing Director
S Lakshmanan	Dr C Bhaktavatsala Rao	Dr M R Girinath	Dr I Seetharam Naidu
Partner	Deputy Managing Director	Director	Director
Place: Chennai	D S Bhaskara Raju		L Chandrasekar
Date: May 3, 2007	Chief Financial Officer		VP – Internal Audit & Secretary



Schedules to the Consolidated Accounts as at March 31, 2007

		en " je r Versas		
				(Rs. Lakh
].	31.03.2007	·	31.03.2006
Schedule: A2 - Share Capital ***		I		· · · · · · · · · · · · · · · · · · ·
Authorised	1	1	·	
10,00,00,000 (Previous year - 9,00,00,000) Equity Shares of Rs. 10/- each	<u> </u>			
Issued, Subscribed and Paid-Up	{	10000.00		9000.00
6.59 16 201/Professional C 46 10 102) - 15 51 40 40 40				
6,58,16,291(Previous year – 6,46,18,182) equity Shares of Rs. 10/- each fully paid	<u> </u>	6581.63		6451.82
1,73,76,940 equity shares of Rs. 10/- each are allotted as fully paid up by way of bonus shares by capitalisation of reserves:				,; -
Schedule To Reserves & Surplus		,	· · · · ·	<u> </u>
Capital Reserve]	1	-	
- Opening Balance	 	}	} 	'
- Additions during the year (Refer Note 21(b))	805.54	805.54	<u> </u>	·
Securities Premium Account	003.34	003.34		
- Opening Balance	57430.05		34874.36	
- Additions during the year	2788.21		26016.11	· · · · · · · · · · · · · · · · · · ·
	50218.26		60890.47	
Deductions during the year	002 10.20		00090.47	
- Issue of Bonus shares		' -	1737.69	
Provision for premium on redemption of FCCB (Refer Note 9(c))	36371.36		458.68	
- GDR / FCCB issue expenses adjustment	2211.52	21635,38	1264.05	57430.05
General Reserve		21000.00	1204.03	37430.03
- Opening Balance	9670.51		5670.51	
- Add: Transfers during the year	7000.00	16670.51	4000.00	9670.51
oreign Currency Fluctuation Reserve	7.500.00		4000.00	3070.31
Opening Balance	(133.63)		(107.13)	··
Adjustments	4.75	(128.88)	(26.50)	(133,63)
ourplus in Profit & Loss Account	(2100.70)	(120.00)	216.61	(133.03)
Adjustment on consolidation	5045.78	2945.08	3913.34	4129.95
		41927.63	3373.34	71096.88
		7,725,00		71030.00
A LEGACIAN COMO POR TIVE STORING CONTRACTOR AND A STORING CONTRACTOR AN			 	•
Schephile 15. Secured Loans	Ì	į.	. #	
rom Banks	1		. 1	
lupee Term Loans	38890.64	-,	46067.15	
tupee & Foreign Currency Packing Credit & Advance against Bills	29865.47		30588.39	
		68756.11		76655.54
rom Financial Institutions				
upee Term Loans	_		5906.25	
oreign Currency				
erm Loans	1689.00		.1392.50	
Vorking Capital Loans		1689.00	278.50	7577.25
Vorking Capital Loans lire Purchase Finance		1689.00 210.66	278.50	7577.25 94.07

Term loan from Bank of Baroda for NPNC project is secured on the assets of NPNC project at Aurangabad and Irungattukottai. All other Rupee Term Loans and Foreign Currency Term Loans from Banks & Financial Institutions are secured by Pari Passu charge by way of joint mortgage on immovable and movable assets situated at Factory premises at SIDCO Industrial Area, Alathur, MIDC Industrial Area, Aurangabad, SIPCOT Industrial Park, Irrungattukottai and R&D premises at Sholinganallur and current assets, subject to prior charges created/to be created on current assets in favour of bankers and financial institutions for securing working capital borrowings. Total term loans aggregating Rs. 20000 Lakhs are additionally secured by personal guarantees of Shri K Raghavendra Rao, Managing Director of the Company.

Packing Credit and Advances against bills from Banks and Working Capital Loans from Banks and financial institutions are secured by first charge on all current assets namely, Stocks of Raw materials, Semi-finished & Finished Goods, Stores and Spares not relating to Plant & Machinery (Consumable Stores and Spares), Bills Receivable, Book Debts & all other movable property both present and future excluding such movables as may be permitted by the banks/ financial institutions from time to time and by second charge on immovable properties after charges created/ to be created on immovable assets in favour of Financial Institutions/Banks for securing Term Loans. The borrowings from banks are additionally secured by personal guarantee of Shri. K Raghavendra Rao, Managing Director of the Company. Hirepurchase Loans are secured by the assets acquired through such loans.

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Schedules to the Consolidated Accounts as at March 31, 2007

E	IF TO KANA O	医型型型			经工程的				1.00 M		(Rs. Lakhs)
SI. No.	Asset Descrip		Gross E	Gross Block (At Cost)			Debraciation	Debteciation/Americanical	Proposition and Address	では、などは金属	· · · · · · · · · · · · · · · · · · ·
		As at	Additions/	Deletions/	As at	Up to	For	a C		written De	Written Down Value
	·	1,4,2006	Adjustments	Adjustments	31.3.2007	31,3,2006	the vear	Defetions	מו קט	Asat	As at
			during	during					1007:5:15	7007:5:15	31.3,2006
			the year	the year		. —					
-	Goodwill on Consolidation*	7287.39	2194.93		9482.32						
7	2. Freehold Land &									9482,32	7287.39
	Site Development	1302.09	302.16	11.96	1592.29	ì	•				
w.	Leasehold Land	643.05	181,10	•	824.15		20.05	•	,	1292.29	1302.09
4	Buildings	15719.87	1068.19	-	30 DOT 31	0.00	10,80	-	39.04	785.11	643.05
5.		9435155	17520 65	0, 63	00.00701	1910./8	203.17	7	2413.95	14374.11	13809.09
9			50505	93.19	70'8/801	30085.47	6525.63	32.80	36579.30	70298.72	64265.08
· r		953,00	154.48	,	1107.48	430,42	101.60	1	532.02	575.46	577 58
;		6337.72	911.87	3.90	7245.69	1152,44	340.11	2.27	1490.2R	2755 41	244.30
χi		1574.09	362.55	0.57	1936.07	791 25	162.84	75.0	10.630	11.00	07.6016
6		1282,34	55.42	1.94	1335.82	207 30	25.20	77.0	933.02	382,25	782.84
<u>6</u>		502.25	243 56	00 001	70.000	05.75	/,5//	0.84	473.91	861,91	884.96
=	11. Intangible Assets			20.201	0.58	8.8	55.14	48.22	171.52	471.49	337.65
	Acquired										
	Brands & Trademarkes **	2202.60	575.56	ı	2778.16	1430.04	450.71			;	į
	Patents & Registrations	140.53	0.59	134.22	8,9	,	1000		C/,889,/3	688.41	772.56
	Internally Generated								1	6.90	140.53
·	DMF & ANDA ***	41,20.15	1599,79	i	5719,94	1009.66	244'31		1000	1	, :
	Total	136416.63	20239.85	318.57	156337,91	37373.04	8508.92	97.70	15.55.37	16.504	3110.49
	Previous Year Figures	105567,20	32124,43	1274.99	136416 63	72 1 1 1 1 1	20000	3 3	96.7676	110540.35	99043.59
* 0.464				4	200	4.1.2002	67:0600	/8.68	37373.04	99043.59	

Refer Note 2 (e) of Schedule - P

** Represents value of registrations and value of applications filed pending registration
*** Refer Note 2 (b) (v) of Schedule - P

@ Depreciation for the year includes Rs. Nii (Previous year Rs. 48.49 Lakhs) being accumulated depreciation of Bexel Pharmaceuticals Inc. as on March 31, 2005 which has become subsidiary during the year 2005-06 and was consolidated as a Joint Venture in prior to 2005-06.



Schedules to the Consolidated Accounts as at March 31, 2007

		* * * * * * * * * * * * * * * * * * *
	·	(Rs. Lakhs
	31.03.2007	31.03.2006
Schedule: Eff. Inventories (Refer Note 2(g), Schedule: 1979)		
Raw materials	11465.58	9687.20
otores and Spare parts	2072.55	1867.09
Chemicals and Consumables	1177.18	796.06
Packing Materials	1255.91	982.49
ntermediates & WIP	37166.24	26348.73
inished Goods	7433.33	4504,91
Fraded Goods	590.54	628.47
	61161.33	44814.95
	0110135	(, 11011.33
School Supplied Debtors		
Debts more than 6 months (Unsecured)		
Considered Good	25408.30	19902:34
Considered Doubtful	1561.81	1670.49
Other Debts (Considered Good)		
Secured	1021.54	62.86
Unsecured	11886.61	14892.28
	39978.26	36527.97
ess: Provision for Doubtful Debts	1661.81	1670,49
	38316.45	34857.48
	· · · · · · · · · · · · · · · · · · ·	<u> </u>
· 注意 · 通過學生學自然的學習的學習的學習的學習的學習的學習的學習的學習的學習的學習的學習的學習的學習的		
chediters cash and Parit Balances ash in Hand	10.27	9.16
alances with Scheduled Banks on		7
Current account	844.01	800.09
Term Deposit account	0.58	0.55
Margin money deposit	859.50	756.88
Share Application money and Dividend account	51.61	49.21
alance with other Banks on		
Current account	10126.50	10.02
	11892.47	1625.91
Participation of the Control of the		
Kiredile_TH:- Ontier Current Assets		·
nterest accrued on deposits and advances	14,93	31.37
	14.93	31.37
effedue CF. Loans and Advances (Drissched)		
onsidered Good] [
hare Application Money Pending Allotment	30.00	
dvances recoverable in cash or kind or for value to be received	10256.69	
dvance Payment of Tax		8357.75
eposits	918.31	863.50
With Government authorities	201 02	465.65
Others	291,83	165.89
onsidered Doubtful	366.30	. 72.80
Others		
- N T	491.11	
ss: Provision for Doubtful Advances	12354.24	9459.94
200 LIGATEGE IN PORNING NOVOLCES	491.11	
	11863.13	9459.94

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Schedules to the Consolidated Accounts as at March 31, 2007

		(Rs. Lakhs
	31.03.2007	31.03.2006
Schedule of Experient Liabilities and Provisions		
Acceptances	1125.31	
Sundry creditors (other than SSI) for	1125.31	1313.28
- Capital Items	4973.34	1522 53
- Other supplies	13604.27	1577.57 15013.49
- Expenses (Includes due to Directors - Rs. 375 Lakhs (Previous year - Rs. 300 Lakhs))	3599.43	3332.89
Dues to Small Scale industrial undertakings (SSI) for	2333,23	3332.09
- Other supplies	434.57	324.84
Investor Education and Protection Fund shall be credited		324.04
by the following amounts namely:*		
- Unclaimed Dividend	51.61	49.21
- Share Application Money Refundable	5.42	5.42
Interest Accrued but not due	218.28	5.24
Premium payable on redemption of FCCBs (Ref Note 9(c))	36830.03	J.27
Other liabilities [Refer Note 21(d)]	1746.77	2205.84
Provisions		2203.04
- For Taxation	445.45	445.45
- Proposed Dividend	2940.54	
- Tax on Proposed Dividend	499.74	2209.47
	66474.76	309.88 26792.58

Represents balances in those accounts as of 31st March. Actual amount to be transferred to the Investor Education and Protection Fund will be determined on due dates.

Schedules to the Consolidated Accounts for the year ended March 31, 2007

Screenie R. Sales & Operating Income		1		,
Sales				
Less : Excise Duty	94741.68	1	91548.04	
Operating Income	2093.63	92648.05	1488.56	90059.48
Income from services rendered		ļ <u>.</u>		
- Technical & Consultancy Fees (TDS - Rs. Nil (Previous year-Rs. 7.45 Lakhs))		 	<u> </u>	<u> </u>
Contract Research & Development		2.88		57.28
Sale of Other Materials	141.00	509.88		105.34
Less: Excise Duty	414.06		293.85	
Development Fee	32.14	381.92	42.37	251.48
Licence Fee	<u> </u>	2434.56		446.21
Other Operating Income		328.75		2479.50
The state of the s		76.26		263.77
		96382.30		93663.06
Schildride "E" - Other income				
Interest on Advances		_i		10.75
Income from Investments				10.76
Dividend – Non Trade		14,94		10.25
Profit on sale of fixed assets		9.75		57.07
Miscellaneous Income	-	10.93	·—	
	···	35.62		43.82
		33.02		121.90
Safectule M - Materials Cost				
Raw Materials Consumed	44051.68		40914.42	. •
Cost of Traded Goods	2205.68	46257:36		43040.55
Less: (Accretion) / Depletion to Stocks	2205,00	40237.36	2034.14	42948.56
Closing Stock of Intermediates WIP & Finished Goods	44599,57		20052.64	
Opening Stock of Intermediates WIP & Finished Goods	30853.64	(13745.93)	30853.64	(20 40 65)
Consumption of Packing Materials	20002.04	2852.29	28804.81	(2048.83)
		35363.72		1941.36
		JJJ03./Z		42841.09



Schedules to the Consolidated Accounts for the year ended March 31, 2007

		(Rs. Lakhs
	31.03,2007	31.03.2006
Spetitie: No.: Marindacturing Selling and Other Expenses: 17-17		7
Power and Fuel	5511,75	4445 00
Conversion Charges	1337.97	4445.09
Consumption of Stores, Spares & Chemicals	2860.75	1721.31
Factory Maintenance		2173.50
Salaries and Wages	1819.77	1296.09
Contribution to Provident & other funds	7530.10	5781.02
Staff Welfare	884.87	519.47
Rent	829.67	663.40
Rates & Taxes	82.47	41.32
Insurance	100.27	172.55
Postage, Telephone & Telex	1377.09	1064.32
Printing & Stationery	161.20	155.05
Vehicle Maintenance	204.90	172.84
Research & Development (Refer Note 26)	48.85	45.72
Advertisement	4417.65	3656.25
Recruitement expenses	25.82	42.03
Auditors' Remuneration	88.12	45.28
Statutory Auditors [Refer Note 14]		
Cost Auditors	73.47	74.98
Travelling and Conveyance	12.79	10.12
Directors' Remuneration & perquisites	954.28	774.68
Directors' Travelling	626.73	504.66
Inland		
Overseas	10.79	9.68
Directors' sitting fees	80.20	40.93
Loss on sale of fixed assets	18.20	19.80
Freight outward	47.24	16.63
Commission on Sales	1625.57	1514.69
	1125.95	1174.51
Lease Rentals	35.75	
Business Promotion and Selling Expenses	1138.17	558.97
Consultancy & Professional Fees	1114.46	727.82
Exchange Rate Loss / (Gain)	(2218.28)	(878.44)
Provision for doubtful debts & advances		
Net of Rs.8.67 Lakhs for doubtful debts written back) Bad debts and advances written off	482.43	14.79
Miscellaneous expenses	38.23	
Appenanteous expenses	1450.76	1149.56
ess: Loss of profit – Insurance claim	33907.99	27708.62
ess: Loss of profit – insurance claim	547.52	631.99
	33360.47	27076.63
Market and the property of the property of the party of t		
Herbye (C.2 Interest and Timence Charges (Beffer Noise 15)		1.
nterest on Term Loans	5014.64	4106.39
Other Interest & Finance Charges	4914.51	4678.09

On behalf of the Board

As per our report of even date For SNB Associates Chartered Accountants

R Narayanan Chairman

K Raghavendra Rao Managing Director

S Lakshmanan Partner

Dr C Bhaktavatsala Rao Deputy Managing Director

Dr M R Girinath Director

Dr I Seetharam Naidu Director

Place: Chennai Date: May 3, 2007 D S Bhaskara Raju Chief Financial Officer

L Chandrasekar VP – Internal Audit & Secretary Orchid Chemicals & Pharmaceuticals Ltd. • Annual Report 06-07 • 130 > 131

Schedules to the Consolidated Accounts

- 主要制度を対応となる。

1. a) The Company and description of business

Orchid Chemicals & Pharmaceuticals Limited was incorporated in India in July 1992 and started commercial production in February 1994. The Company manufactures active pharmaceutical ingredients as 100% export oriented unit, and manufactures and sells finished dosage forms (formulations) in domestic and export markets. The company also has a fullfledged R & D facility. The Company has invested in the following companies:

- a) Orchid Europe Limited (previously known as Orchid Nutricare Limited), a company formed in the United Kingdom to market nutraceuticals through mail order/ direct marketing in the United Kingdom and Europe.
- Ogna Farma Distribuicao, Importacao, Exportacao e Assessoria Ltda., a Company formed in the Brazilian Republic to market bulk and formulations.
- NCPC Orchid Pharmaceuticals Company Limited incorporated in China, engaged in the business of manufacture and sale of bulk drugs & formulations.
- d) BChD Biotechnological Chemical Development Limited, UK engaged in pharmaceutical research and manufacturing.
- e) Bexel Pharmaceuticals Inc., USA engaged in pharmaceutical research and development.
- f) Orchid Pharmaceuticals Inc., USA to market bulk and formulations in USA. It has a whollyowned subsidiary "Orgenus Pharmaceuticals Inc., USA which markets formulations.
- g) Gene Arrays Inc., USA engaged in pharmaceutical research and development.
- h) Orchid Research Laboratories Limited, India engaged in pharmaceutical research and development.
- Orchid Pharmaceuticals SA (Proprietary) Limited, South Africa to market formulations in South Africa.
 The Company, its Subsidiaries and its Joint Ventures are collectively referred as "the Group".

b) Consolidation

The Company's consolidated financial statement has been prepared on the following basis.

Name of Subsidiary/Joint venture	Country	Type of holding	Percentage of Holding	Nature of Realtionship	Accounting Standard of "ICAI" adopted for consoli- dation of accounts
Orchid Europe Limited (Previously known as Orchid Nutricare Limited)	UK	Equity	100%	Subsidiary	AS 21*
Ogna Farma	Brazil	Equity	98.5%	Subsidiary	AS 21**
Orchid Pharmaceuticals Inc.	USA	Common stock	100%	Subsidiary	AS 21**
Orgenus Pharma Inc.	USA			Subsidiary of Orchid Pharm- aceuticals Inc.	
Gene Arrays Inc.*** #	USA	Convertible Preferred stock with equal voting rights as Common stock	66.67%	Subsidiary	AS 21**
Orchid Research Laboratories Ltd.	India	Equity	100%	Subsidiary	AS 21*
Orchid Pharmaceuticals SA (Proprietary) Limited	South Africa	Equity	100%	Subsidiary	AS 21**
NCPC Orchid Pharmaceuticals Company Limited	China	Equity	50%	Joint Venture	
BChD Biotechnological Chemical Development Limited #	UK	Equity	50%	Joint Venture	AS 27**
Bexel Pharmaceuticals Inc.***	USA.	Convertible Preferred stock with equal voting rights as Common stock and Common stock	@68.48%	Subsidiary	AS 21**

[&]quot;ICAI" refers to the Institute of Chartered Accountants of India.

^{*} based on the Audited accounts

^{**} based on the Management approved accounts



Schedules to the Consolidated Accounts

Schedule "P" - Notes to the Consolidated Financial Statement (Conta)

*** Preferred stock has been considered as common stock for the purpose of calculating the percentage of holding since Preferred stock has the same voting rights as common stock.

- @ Excluding 31.52% held through a wholly owned subsidiary.
- # . Companies under liquidation

c) Convenience Translation

The accounts of the subsidiary companies and joint venture companies have been prepared in their respective currencies. For the purpose of convenience the balances are translated into Indian currency, being the reporting currency in the consolidated financial statements, at the closing rate as at March 31.

2. Group Significant Accounting Policies

a) Accounting Convention

The Financial Statements are prepared under historical cost convention. Revenues are recognised and expenses are accounted on their accrual with necessary provisions for all known liabilities and losses.

b) Fixed Assets

- Fixed Assets are stated at the original cost inclusive of inward freight, incidental expenses related to acquisition and related pre-operational expenses and technical know-how fees where applicable.
- ii) Machinery spares which can be used only in connection with specific fixed assets and the use of which are irregular, are charged over the period of the life of such fixed asset, in accordance with Accounting Standard (AS 10).
- Brands represent brands acquired by the company and includes IPR & Licences purchased for a consolidated consideration. The cost of brands, patents and trademarks are amortised over a period of 60 months from the month of acquisition.
- iv) The cost of patents / registrations acquired by subsidiaries / joint ventures are amortised over their useful life after they are put to use.
- v) Internally Generated Intangible Assets DMF & ANDA. DMF and ANDA cost represents expenses incurred on development of processes and compliance with regulatory procedures of the US FDA, in filing Drug Master Files ("DMF") and Abbreviated New Drug Applications ("ANDA"), in respect of products for which commercial value has been established by virtue of third party agreements/arrangements. This is in accordance with the requirements of Accounting Standard 26 issued by the Institute of Chartered Accountants.

The cost of each DMF/ANDA is amortised to the extent of recovery of developmental costs applicable as per terms of agreement or over a period of five years from the date on which the product covered by DMF/ANDA is commercially marketed, whichever is earlier.

vi) Assets are depreciated on straight line basis at the rates specified in Schedule XIV of the Companies Act, 1956 except in respect of the following assets, where the useful lives reckoned in computing the depreciation for the year are different from those derived from the rates specified in Schedule XIV of the Companies Act, 1956. The revised useful life of the assets have been determined by the Management based on technical assessment. Depreciation in the books of Subsidiaries/Joint Ventures have not been restated, since the differences are not material.

Asset Categories	Useful life	
Reactors, Pipes, Pipe fittings, Valves, Motors, Pumps, Nitrogen Plant,	9 years	
Gear Boxes, Cables and Centrifuges, Evaporator (indigenous), Jet aeration	- ,	
system (indigenous), Ventilation & Exhaust system, HCL column,		
ETP (indigenous), scrubber, incenarator (indigenous).		

- vii) Leasehold assets cost is amortised over the period of the lease.
- viii) Depreciation on assets added/disposed off during the year is provided on pro-rata basis from the month of addition or up to the month of disposal, as applicable.

Schedible 172 Notes to the Consolk Great Financial Statement & 1860.

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Schedules to the Consolidated Accounts

Management periodically assesses using external and internal sources whether there is an indication that an asset may be impaired. An impairment occurs where the carrying value exceeds the present value of future cash flows expected to arise from the continuing use of the assets and its eventual disposal. The impairment loss to be expensed is determined as the excess of the carrying amount over the higher of the asset's net sales price or present value as determined above.

c) Borrowing Costs

Interest cost on qualifying asset being an asset that necessarily takes a substantial period of time to get ready for its intended use or sale, is capitalised at the weighted average rate of the funds borrowed and utilised for acquisition of such assets.

- Treatment of expenditure during construction period. Expenditure during construction period is included under capital work-in-progress and the same is allocated to the respective fixed assets on the completion of construction.
- e) The excess of cost to the Company of its interest in subsidiaries / joint ventures over its share of net assets of such subsidiaries / joint ventures at the date of acquisition of interest is recognised as goodwill on consolidation. Goodwill arising on consolidation is not amortised.

Investments

investments considered long term are shown at cost. Diminution in the value of investments other than temporary are provided for.

g) Inventories

- Stores & Spares a
- iil Raw Materials
- Finished Goods @ iii)
- iv) Work in Progress & Intermediates @
- At weighted average cost,
- At annual weighted average cost
- At lower of cost & net realisable value
- At lower of cost & net realisable value After adjustment of unrealised profits on inter division transfer.

h) Revenue Recognition

Sales are recognised on despatch of goods from the factory/warehouse. Sales are net of returns, discounts and inter-division transfers. Service income is recognised as per contractual terms. In respect of composite contracts involving development and other activities, income is recognised on the basis of contractual terms after considering the quantum of work completed.

Retirement Benefits

Retirement Benefits are accounted on accrual basis. The company's liability towards the gratuity of employees are covered by a group gratuity policy with LIC. Contribution to the fund is based on actuarial valuation carried out yearly as at 31st March. As on March 31, 2007 it is covered by a policy with ICICI Prudential Life Insurance Company Ltd. and the contribution to the fund is based on actuarial valuation carried out as at March 31. The Provision for Leave Encashment has been made based on actuarial valuation as at the year end.

Translation of Foreign Currency items

- Foreign currency liabilities including liabilities on swap transactions, in respect of fixed assets, which have been acquired from a country outside India, have been restated in rupee terms at the exchange rates prevailing at the date of the Balance Sheet and the increase or decrease arising out of it is adjusted to the cost of fixed assets.
- Other foreign currency assets and liabilities are recognised at the rates applicable on the date of the Balance Sheet and the difference is charged to the Profit & Loss Account.
- All Inter related transactions are recognised at common rates.
- Exchange difference between the rates applicable at the date of the transaction and the rate actually realised (exceptin cases of inter-related transactions as stated above) has been shown as exchange gain/loss.
- Transactions covered by forward contracts/options are stated at forward rates and the difference between forward rate and exchange rate at the date of the transaction has been recognised as income or expense over the life of the contract.



Schedules to the Consolidated Accounts

Schedule TR - Notes to the Consolidated basancial Stateme

k) Subsidy on Fixed Assets

Subsidy received on fixed assets is credited to the cost of respective fixed assets.

3. Sales tax recoverable have been recorded on the basis of the claims submitted or in the process of being submitted, as per rules relating to EOU and which in the opinion of the company are recoverable.

		(Rs. Lakhs)
	As at 31.03,2007	As at 31.03.2006
Estimated amounts of contracts remaining to be executed on capital account (net of advances) and not provided for	7767.90	9016.84
Other monies for which company is contingently liable		
– Bills Discounted	20278.58	15126.75
- Unexpired Letters of Credit	10086.47	13447.77
- Bank Guarantees outstanding	276.99	1018.48
- Claims against the company not acknowledged as debts		7070.46
Cess on electricity generation pending before High Court of Chennai	294,13	214.55
Excise demands under dispute pending before Excise authorities	381.71	283.48
Service Tax dispute pending before High Court of Chennai	42.26	186.51

- 6. The Company has filed an appeal against the demand made by the Income Tax department amounting to Rs. 111.92 Lakhs (Previous year Rs. 103.78 Lakhs). No provision has been made as the company is confident of winning the appeal. No provision has also been made for demand of interest amounting to Rs. 68.88 Lakhs (Previous year Rs. 68.88 Lakhs) as petition has already been filed for waiver of interest.
- 7. Committment to subscribe to the capital of the Subsidiary Companies as at the date of balance sheet is Rs. Nil (previous year Rs. 3226.98 Lakhs).
- 8. In the financial statements for the year ended 31st December 2006 of Bexel, prepared as a Development Stage Enterprise, the auditors of the company have referred to Note 2 to the financial statements and expressed an opinion that the successful completion of the Company's development program and ultimately the attainment of profitable operations is dependant upon future events, including maintaining adequate financing to fulfil its development activities and achieving a level of revenues adequate to support the Company's cost structure. The text of Note 2 referred to is reproduced below.

The financial statements of the Company have been prepared in conformity with Statement of Financial Accounting Standards ("SFAS") No. 7, Accounting and Reporting by Development Stage Enterprises, and assume the Company will continue as a going concern. As a development stage company, with no commercial operating history, the Company is subject to all of the risks and expenses inherent in the establishment of a new business enterprise. To address these risks and expenses, the Company must, among other things, respond to competitive developments, attract, retain and motivate qualified personnel and support the expense of marketing new products based on innovative technology. To date, the Company has incurred expenses in research and development activities without generating sufficient revenues to offset those expenses. As a result the Company has incurred losses and negative cash flow from operating activities, and as of December 31, 2006, the Company had accumulated net losses of US\$ 17,790,412. There can be no assurance that management will achieve the intended results.

9. Foreign Currency Convertible Bond (FCCB)

a) The Company raised FCCB during the current year aggregating to USD 175 million (Rs. 77358.75 Lakhs) with an option to the investor to convert the FCCBs into equity shares of the Company at an initial conversion price of Rs. 348.34 per share at a fixed rate of exchange on conversion Rs. 43.93 = USD 1, at any time after April 9, 2007 and prior to February 18, 2012. Further the Company has an option of early redemption of these FCCBs in whole at any time on or after February 28, 2010.

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Schedules to the Consolidated Accounts

Schemie 191 Notes to the Consolidated Financial Statement (Cond.)

and prior to February 21,2012, subject to certain conditions. Unless previously converted, redeemed or repurchased and cancelled, the FCCBs will be redeemed on February 28, 2012 at 142.77 % of their principal amount.

b) The Company raised FCCB during the year 2005-06 aggregating to USD 42.50 million (Rs. 19284.50 Lakhs) including a green shoe option of USD 5 million (Rs. 2289.50 Lakhs) with an option to the investor to convert the FCCBs into equity shares or global depository receipts at an initial conversion price of Rs. 243.80 per share at a fixed rate of exchange on conversion Rs. 44.94 = USD 1. Out of the above, FCCBs amounting to US\$ 22.79 million (Rs. 10241.83 Lakhs) (including US\$ 6.25 million (Rs. 2808.75 Lakhs) during the current year 2006-07) have been so far converted.

Further, the Company has an option of early redemption of these FCCBs in while at any time after November 03,2006 subject to certain conditions. Unless previously converted, redeemed or repurchased and cancelled, the FCCBs will be redeemed on November 03,2010 at 147.1688% of their principal amount.

The current status of above FCCB conversion into equity is as follows:

Particulars	FCCB Value	Number of	Increase	Increase in
•		Shares	in Equity	Security
•				Premium
	USD Million	in Lakhs	Rs. Lakhs	Rs. Lakhs
Conversion effected up to March 31 2007	22.79	42.00	420.09	9821.71
	22.79	42.00	420.09	9821.71

c) Provision has been made for the entire premium payable on redemption of FCCBs amounting to Rs.3,6371.36 Lakhs (Net of Rs.458.68 Lakhs provided in 2005-06 on pro-rata basis) by debiting the Securities Premium account (SPA). In the event that the conversion option is exercised by the holder of FCCBs in the future, the amount of premium charged to SPA will be suitably adjusted in the respective years.

The debit to share premium account for premium on FCCBs and for issue expenses have been made on the gross value without adjusting any tax impact. Tax benefits accruing to the company on account of claiming such expenses will be credited to the premium account in the year in which the benefit is enjoyed by the company.

d) Even though the Company has provided for the premium on redemption of FCCBs as per note (c) above, the Company has also made provision for dividend in the books of account on the equity shares to be allotted upon conversion of FCCBs outstanding as at March 31, 2007, since the Company is obliged, as per SEBI guidelines, to pay dividend to those FCCB holders who convert their FCCB into equity after adoption of the financial statements and upto the book closure date.

			(Rs. Lakhs)
	;	As at	As at
		31.03.2007	31.03.2006
Usage of funds raised through FCCBs			
Opening Balance		7.47	
Funds received		77358.75	37325.70
Add: Interest received		164.14	31.15
Less: Expenses of Issue / Exchange fluctuations		2208.56	1626.02
		75321.80	35730.83
Repayment of Loans		60811.67	26990.57
Capital Expenditure / Advances / ANDA filings		4392.92	8732.79
Balance		10117.20	7.47
		 	



Schedules to the Consolidated Accounts

10.a) Assets acquired pending for registration in favour of the company		
Freehold Land	59.09	129.39
b) Fixed Assets include assets on hire purchase (Gross Block)	313.61	160.00
1. Loans and Advances include Convertible portion of Loans to joint venture Company		119.45
2. Value of Assets on Lease	_	
Future Commitments towards Lease Rentals		
3. Share application money pending allotment represents amount received from employees in terms of options exercised under "ORCHID-ESOP 99" scheme and pending allotment	0.96	
	2006-07	2005-06
4. Auditors' remuneration include the following: *		
Audit fee	55.30	53.73
Tax Audit fee	8.54	8.42
For certification & other matters	9.64	12.83
	73.47	74.98
* Excluding Rs.44.90 Lakhs (Previous year - Rs.38.57 Lakhs) for services rendered in connection with GDR/FCCB issue		
5. a) Other Interest and Finance Charges is after crediting interest receipts	41.90	29.12
TDS on interest receipts	9.64	8.69
b) Amount of interest capitalised	2581.71	1585.32

16. Balance as at the end of the year and maximum amount outstanding at any time during the year with banks other than Scheduled Banks.

			(Rs. Lakhs)
		2006-07	2005-06
Bank of America, New York	Balance as at March 31	-	2.12
	Maximum amount outstanding	2.12	18.56
ABN Amro Bank, Moscow	Balance as at March 31		0.43
	Maximum amount outstanding	28.99	136.92
Citibank NA, New York	Balance as at March 31	6.26	7.47
	Maximum amount outstanding	7.47	7827.19
JSC Vneshtorgbank, Moscow	Balance as at March 31	9.29	
	Maximum amount outstanding	47.34	
Bank of India, New Jersey	Balance as at March 31	10110,95	
	Maximum amount outstanding	75422.15	·

- 17. Excise duty on finished goods has been accounted on removal of goods from factory, wherever applicable. Finished goods at factory have been valued at cost exclusive of excise duty and no provision has been made for excise duty on such goods. The above treatment has no impact on Profit & Loss account.
- 18. Insurance claim against material damage and claim against loss of profit as accepted by insurance company have been adjusted in the respective accounts as below:

	Rs. in Lakhs	Rs. in Lakhs
Fixed Assets		105.54
Manufacturing, Selling & Administrative Expenses	547.52	631.99

The amount of claims accounted represents conservative amount which in the opinion of the Company is minimum realisable.

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Street let By Mortes to the Consoliciated Financial Statement Complete Co. 19. Related Party Transactions

In accordance with Accounting Standard 18, the disclosure required is given below:

Al-L				(Rs. Lakhs,
Nature of Transaction	Subsidiary	Joint venture	Key Management Personnel	
- Share Application money pending allotment	-		-	-
Inner On the Fire Indian	(-)	(-)	(-)	(-)
- Loans (Including Interest accrued)	I	-		-
– Shares allotted	(-)	(-)	. (-)	(-)
- Shares allotted	-	-	-	
11/2	(-)	(-)	(-)	(424.37)
- Warrants allotted	! - 1	- 1		496.50
C-1	(-)	(-)	(-)	(797.61)
Sale of goods	! · -	1620.02		_
D. 1	(-)	(343.66)	(-)	\leftrightarrow
Rendering of Services / Royalty / Interest income] - }	24.35	_	
	(-).	(148.93)	()	(-)
Services Received / Rent Paid	- 1	-		376.32
- Remuneration	(-)	(-) -	(-)	(251.73)
- vegunisation		-	626.73	=
Availment of services	(-)	(-)	(504.66)	(-)
Availment of services	[<u>_</u>]`	-		_
American Description of the second	(-)	(+)	(-)	(-)
Amounts Due at the end of the year – Debit		121.55	-1	17.50
Amounts Dun shat and a state	(-)	(381.82)	()	(7.50)
Amounts Due at the end of the year – Credit	- [-]	- [1005.81
	(-)	(-)	(-)	(-)

Figures in brackets are for previous year

Names of the related parties and description of relationship.

Orchid Europe Limited, UK (Previously known as
Orchid Nutricare Limited)
Ogna Farma, Brazil
Gene Arrays Inc., USA
Orchid Pharmaceuticals Inc., USA
Orgenus Pharmaceuticals Inc., USA
(Subsidiary of Orchid Pharmaceuticals Inc., USA)
Orchid Research Laboratories Ltd. India
Orchid Pharmaceuticals SA (Properitary)Limited, South Africa
Bexel Pharmaceuticals Inc., USA
NCPC Orchid Pharmaceuticals Company Limited, China
BChD Biotechnological Chemical Development Limited; UK
Mr K Raghavendra Rao, Managing Director
Dr C Bhaktavatsala Rao, Deputy Managing Director
Mrs R Vijayalakshmi (wife of Mr K Raghavendra Rao)
Spectrasoft Technologies Limited

All whole time directors have been considered as Key Management Personnel as they are involved in planning, directing & controlling the activities of the reporting enterprise.



Schedules to the Consolidated Accounts

etiole: 10 " Notes to the Consolidated Financial Statement (Comp.)		
	THE RESERVE THE PROPERTY OF THE PARTY OF THE	(Rs. Lakhs)
 b) Information on Loans & Advances as per clause 32 of the listing Agrees 	ment	
	Balance	Maximum
	as on 31-03-2007	amount
		outstanding
		during the year
oint Venture – BChD Biotechnological Chemical Development Limited, UK		253.73
- NCPC Orchid Pharmaceuticals Company Limited, China	121.55	121.55

20. In terms of the resolution passed by the company at the EGM dated October 21,1999 Employee Stock Option Scherne was extended to the employees of the company. Accordingly options totalling 15,00,000 Nos were given to the employees as per the scheme formulated under "ORCHID-ESOP 99" scheme by the compensation committee of the Board of Directors. Each option is convertible into one equity share of Rs. 10/- each at a price of Rs. 243.35 including premium for 6,00,000 Nos, Rs. 252 including premium for 3,07,925 Nos, Rs. 300.65 including premium for 2,92,075 nos and Rs. 339.25 options for 3,00,000 nos. No entries were passed in the books as the options were given at the market price prevailing on the date of issuance of options.

A fair and reasonable adjustment in share price/ the number of options outstanding was made by the Company in respect of the Employee Stock Options granted but not exercised by the Employees due to the corporate actions of issue of bonus shares during October 2005. The total number of options outstanding and the price was adjusted so that the total value and options available to each option holder remained the same.

Consequently the revised and adjusted prices per share are Rs. 162.24 (Rs. 243.35), Rs. 168.00 (Rs. 252.00) and Rs. 200.44 (Rs. 300.65) respectively for 600000 Nos, 307925 Nos and 292075 Nos of options granted by the company.

For the 300,000 options granted during April 2006 at a price of Rs. 339.25, the Compensation Committee of the Board of Directors considered repricing of the options in the interest of the employees, due to the fall in the price of the shares of the Company and accordingly approved a repricing of the options from Rs. 339.25 to Rs. 193.25 as per the closing price of Orchid at National Stock Exchange on August 11, 2006, subject to the obtaining of the approval from the shareholders.

Pursuant to the exercise of options by employees the Allotment Committee of the Board at its meeting held on April 28, 2006, May 31, 2006, October 19, 2006 and January 19, 2007 allotted 3475, 3015, 4000 and 550 equity shares respectively to the employees. 1493632 Options were outstanding as at March 31, 2007 including the additional number of options adjusted, due to the bonus issue.

In terms of the resolution passed by the company at the AGM dated July 18,2005, 610,000 options were given to the eligible directors and employees as per the scheme formulated under "ORCHID-ESOP 2005" by the compensation committee of the Board of Directors held on August 12, 2006. Each option is convertible into one equity share of Rs. 10/- each at a price of Rs 193.25 per share including premium

- 21.a) In terms of the resolution passed by the Company on July 18,2005 25,00,000 warrants were allotted to the Promoter/ Promoter Group(s) on August 02,2005. These warrants were eligible for conversion at the option of the Warrants holders, into equity shares of the Company at a price of Rs. 339.41 per share within a period of 18 months of the date of allotment.
 - b) The promoters have not exercised 35,60,000 (which includes the adjustment of warrants on account of bonus issue) warrants into equity shares within the stipulated period and hence the warrants stand cancelled. Hence on February 02, 2007, the 10% advance paid by them amounting to Rs. 805.54 Lakhs on the unexercised warrants stands forfeited and credited to capital reserve.
 - c) In terms of the resolution passed by the Company at the EGM held on February 14, 2007, 50,00,000 warrants were allotted to the Promoter / Promoter Group(s), the relative(s) of the Promoter on March 01, 2007. These warrants are eligible for conversion at the option of the Warrants holders, into equity shares of the company at a price of Rs. 202.58 per share within a period of 18 months of the date of allotment.
 - d) Other liabilities include Rs. 1,012.90 Lakhs (Previous year 813.45 Lakhs) being the amount received as advance against the warrants issued to the promoter group, including Rs. 7.09 Lakhs (Previous year Rs. 15.84 Lakhs) from a Director.

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Schedules to the Consolidated Accounts

Schede Pr-More to the Consolidated Financial Statement (Confd) 22. Provision for Deferred tax for the year Rs. 1230 Lakhs (Previous year including reversals Rs. 590 Lakhs)

	•	(Rs. Lakhs)
Deferred Tax liability represents the following	As at 31,03,2007	As at 31.03.2006
Timing Difference on account of Depreciation	16645.36	15236.31
Timing Difference on account of Losses	(6941.96)	(6681.58)
Timing Difference on account of provisions	(467.40)	(548.73)

In accordance with clause 29 of Accounting Standard (AS22) Deferred tax Assets and Deferred tax Liabilities have been set off. Deferred tax assets in respect of unabsorbed depreciation and losses under tax laws have been recognised in view of the continued and consistant profitability of the Company.

23. Segmental Reporting

The Company was disclosing segment information classifying the business as Bulk drugs and Formulation till the financial year 2004-05. However in view of integration of bulk actives and formulation business, with the commissioning of Generics formulation facilities in 2005-06, the Company considers the business as one interrelated and integrated business of "Pharmaceutical products" and hence no separate segmental reporting is provided.

24. Reconciliation of Basic and Diluted shares used in computing Earnings per share (Equity shares of Rs. 10/- each fully paid-up)

		Year Ended 31.03.2007	Year Ended 31.03.2006
Profit After Tax	Rs. In Lakhs	7854.84	5730.00
No of Shares Outstanding	Nos.	65816291	64618182
Weighted Average Number of shares	Nos.	65733282	55814393
Earning per Share – Basic	Rs	11,95	10.27
No of warrants & options allotted	Nos.	32201732	8139778
Total No of Equity shares to compute diluted EPS	Nos.	73061369	60784877
Earning per Share – Diluted	Rs.	10.75	9.43

25. Disclosure as per requirements of Accounting Standard 26

		As at	As at
		31.03,2007	31.03.2006
ACQUIRED		• •	
- Brands, Patents & Trademarks		· .	
Useful life		5 Years	5 Years
Gross Carrying Amount (Rs. in Lakhs)	Opening .	913.09	1358.37
	Additions / Adjustments	441.92	(5.24)
	Amortisation	459.71	440.04
	Closing	895.31	913.09
INTERNALLY GENERATED			,
- DMF & ANDA (Refer Note 2(b)(iv) of Sch	edule P)		
Useful life		5 Years	5 Years
Gross Carrying Amount (Rs. in Lakhs)	Opening	3110.49	1843.98
	Additions / Adjustments	1599.79	2275.17
	Amortisation	244.31	1009.66
	Closing	4465.97	3110.49

335.95

3656.25

483.26 4417.65

Schedules to the Consolidated Accounts

Schedule, The World to the Consolidated Financial Statement Could -

26. Research and Development Expenses includes (Rs. Lakhs) Year ended Year ended 31.03.2007 31.03.2006 Power and Fuel 131.24 282.13 Conversion Charges 0.04 0.11 Consumption of Stores, Spares & Chemicals 1250.02 655.12 Salaries, Wages and Bonus 914.78 1418.07 Contribution to Provident & other funds 99.24 109.76 Staff Welfare 95.54 55.03 Rates & Taxes 58,52 5.20 Insurance 25.15 62.60 Postage, Telephone & Telex 11.96 16.07 **Printing & Stationery** 25.19 42.85 Vehicle Maintenance 4.91 5.52 Recruitment expenses 10.41 11.11 Travelling and Conveyance 43.26 103.08 Testing Charges 1242.31 335.52 Consultancy & Professional Fees 75.15 164.81

- 27. The Board of Directors of Gene Arrays Inc., and BChD Biotechnological Chemical Development Ltd., have decided to close the operations of the respective companies and filed application with the appropriate authorities for liquidation of those companies. Accordingly the accounts of these companies have not been prepared on going concern basis. The consolidated accounts also have been prepared accordingly.
- 28. Previous year's figures have been re-grouped wherever necessary to conform to current year's classification.

As per our report of even date		On behalf of the Boa	ard .
For SNB Associates Chartered Accountants	R Narayanan Chairman	•	K Raghavendra Rao Managing Director
S Lakshmanan	Dr C Bhaktavatsala Rao	Dr M R Girinath	Dr.I Seetharam Naidu
Partner	Deputy Managing Director	Director	<i>Director</i>
Place: Chennai	D S Bhaskara Raju		L Chandrasekar
Date: May 3, 2007	Chief Financial Officer		VP – Internal Audit & Secretary

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Consolidated Cash Flow Statement for the year ended March 31, 2007

		(Rs. Laki
	31,03,2007	31.03.200
A. Cash Flow from Operating Activities		
Net Profit before taxation and extraordinary item	9255.66	6501.0
Adjustment for	323330	- 0301.3
Depreciation	8508.93	8581.7
Dividend Income	(14.94)	(10,25
Loss / (Profit) on sale of Fixed Assets	37.49	(40.43
Foreign Exchange Rate Fluctuations – Unrealised	(42,31)	242.6
Interest Expense	9929.14	8784.4
Provision for doubtful debts	482.43	
Operating Profit before Working Capital Changes		14.7
Adjustments for	28156.37	24074.0
Trade and other Receivables		
Inventories	(7827.93)	(15495.65
Trade Payables	(16346.39)	(4758.59
Cash generated from Operations	5495.06	(4503.31
Income Taxes Paid	9477.11	(683.51
Cash Flow before extraordinary item	(115.98)	(296.00
Net Cash from Operating Activities	9361.13	(979.51
Cash How from Investing Activities	.9361.13	(979.51
Purchase of Fixed Assets		
Proceeds from Sale / Deletion of Fixed Assets	(47795.45)	(18411.64
Investment in Subsidiaries/Joint Ventures	59.50	114.15
Dividends received	<u>-</u>	1,50
Net cash used in Investing Activities	14.94	10.25
Cash Flow from Financing Activities	(47721.01)	(18285.74)
Casa riow from rinancing Activities		<u> </u>
Proceeds from issuance of Share Capital (net of expenses)	100.24	7996.90
Proceeds from advances received against share warrants	1012.90	805.54
Proceeds from issue of Global Depository Receipts		18041.20
Proceeds from Working Capital Borrowings	(722.92)	6164.12
Proceeds from Long Term Borrowings	93644.42	29230.03
Repayment of Long Term Borrowings	(106709.19)	(34543.61)
Proceeds from issue of Foreign Currency Convertible Bonds (net of expenses)	75146.60	11778.65
Proceeds from / (Repayment of) Short Term Borrowings	500.00	(8529.70)
Proceeds from HP Finance	98.45	(10.33)
Interest paid	(12297.81)	(10375,56)
Dividend paid	(2251.26)	(1556.76)
Net cash from Financing Activities	48521.43	19000.48
. Net Increase in Cash and Cash equivalents	10161.55	(264.77)
Cash and Cash equivalents at the beginning of period	819.81	1084.58
Cash and Cash equivalents at the end of period	10981.36	819.81
Reconciliation Statement		
Cash and bank balances as per Balance Sheet	11892.97	1625,91
Less: Margin Money Deposit	859.50	756.88
Unclaimed Dividend	51.61	49.21
Cash and Cash Equivalents as per Cash Flow	10981.36	819.81

Note: The above cash flow statement has been prepared under the 'indirect Method' set out in Accounting Standard 3 issued by the Institute of Chartered Accountants of India.

As per our report of even date
For SNB Associates
Chartered Accountants

R Narayanan
Chairman

Br C Bhaktavatsala Rao
Partner

On behalf of the Board

K Raghavendra Rao
Managing Director

K Raghavendra Rao
Managing Director

Dr M R Girinath
Dr I Seetharam Naidu
Director
Director

Director

Place: Chennai D S Bhaskara Raju I. Chandrasekar
Date: May 3, 2007 Chief Financial Officer VP – Internal Audit & Secretary



Economic Value Added Statement (EVA)

Rs. Crores

S. No.	Particulars	2006-07
	Step-1: Calculation of Cost of Funds Deployed	
1.	Average Debt	1022.68
2. 3.	Average Shareholder's Networth #	731.64
3.	Total Funds Deployed	1754.32
4.	Cost of Debt (Post Tax) – %	10.59
5.	Cost of Equity – %.*	14.22
6.	Weighted Average Cost of Funding - %	12.10
7.	Cost of Funds Deployed	212.32
	Step-2: Calculation of Net Operating Profit after Taxes (NOPAT)	· · · · · · · · · · · · · · · · · · ·
1.	Profit After Tax	96.63
2.	Add adjusted interest **	124.12
3.	NOPAT @	220.76
	Step-3: Calculation of EVA	
1.	EVA :	8.44
2.	EVA as a percentage of Funds Deployed – %	0.48

^{*} Basis of EVA Calculations are as under:

- Risk Free Rate of Return is taken at 6.0%
- Beta Factor taken as 1.37 (Basis is slope of S&P CNX Nifty Index vs OCPL's Average Share Price on a daily price movement basis).
- iii) Market Risk Premium taken at 6.0% for FY 2006-07
- ** Includes pre-operative Interest costs.
- @ NOPAT = PBIT minus all taxes.
- # Shareholder's Networth and debt calculations has been annualized based on the daywise deployment of funds.

Cash Value Added Statement (CVA)

Rs. Crores

S. No.	Particulars	2006-07
	Step-1: Calculation of Cost of Funds Deployed	
1.	Average Debt	1022.68
2.	Average Shareholder's Networth #	731.64
3.	Total Funds Deployed	1754.32
4.	Cost of Debt (Post Tax) – %	10.59

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Rs. Crores

S. No.	Particulars	2006-07
5.	Cost of Equity %.*	14.22
6.	Weighted Average Cost of Funding – %.	12.10
7.	Cost of Funds Deployed	212.32
	Step-2: Calculation of Cash Operating Profit after Taxes (COPAT)	: :
1.	Profit After Tax	96.63
2.	Add adjusted interest **	124.12
3.	Depreciation, Ammortization & Provisions	82.47
4.	COPAT @+ Depreciation, Ammortization & Provisions	303.22
	Step-3 : Calculation of CVA	
1.	CVA	90.90
2.	CVA as a percentage of Funds Deployed – %	5.18

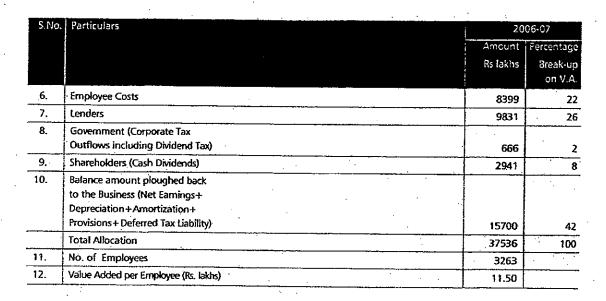
^{*} Basis of CVA Calculations are as under:

- i) Risk Free Rate of Return is taken at 6.0%
- Beta Factor taken as 1.37 (Basis is slope of S&P CNX Nifty Index vs OCPL's Average Share Price on a daily price movement basis).
- iii) Market Risk Premium taken at 6.0% for FY 2006-07
- ** Includes pre-operative Interest costs.
- @ COPAT = PBIT minus all taxes+Depreciation & Amortization
- # Shareholder's Networth and debt calculations has been annualized based on the daywise deployment of funds.

Value Added Statement

S.No.	Particulars Particulars	2006	2006-07		
		Amount	Percentage		
		Rs lakhs	Break-up on V.A.		
1.	Total Income	. 91448			
-	less		·		
, 2.	Raw Material Expenses	31056			
3.	Other Manufacturing and Selling Expenses (excluding Employee Costs)	22856			
4.	Total Expenses	53912			
5.	Net Value Added	37536			
	Allocated to meet				





Key Financial Parameters and Ratios at a Glance

Rs. Lakh

											AS. Lake
S.No.	Particulars	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	2000-01	1999-00	1398-99	1997-98
A)	Financial Results Summary										
1.	Total Sales & Operating					<u> </u>					
	Income	93418	88877	68929	71341	54141	42552	37125	35955	33435	24243
2.	Other income	156	133	82	123	111	. 75	131	377	150	167
3.	Total income	93574	89009	69012	71464	54253	42628	37256	36332	33585	.24410
4,	EBIDTA	29137	26060	16311	15049	10963	9772	10165	11086	8470	6475
5.	Profit after Tax (PAT)	9663	8290	3101	3103	1954	631	3576	3859	3554	3407
5.	Paid-up Equity Share Capital	6582	6462	3413	3238	3238	2800	2800	2800	1735	1735
7.	Shareholder's Net worth #	59361	86509	54568	49690	48049	37017	39765	37423	16982	14198
3)	Key Ratios & Parameters				·	·		107.02			1 11130
	Profitability related Ratios & Par	ameters					· · · · · · · · · · · · · · · · · · ·				
1.	EBIDTA Margin - %	31.14	29.28	23.64	. 21.06	20.21	22.92	27.28	30.51	25.22	26.53
2.	Net Profit Margin – %	10.33	9.31	4.49	4.34	3.60	1.48	9.60	10,62	10.58	13,96
1	Share holder related Ratios & Parameters										
ı.	EPS - Rs. / Share	14.70	14.85	9.55	9.58	6.61	2.25	12.77	18.67	20.49	19.64
2.	Book Value – Rs. / Share	90.19	133.88	159.87	153.45	148.38	132.21	142.02	133.66	97.90	81.85
1	Growth related Ratios & Parameters									0.00	
	Growth in Total Income - %	5.13	28.98	-3.43	. 31.72	27.27	14.42	2.54	8,18	37.59	25.35
.	Growth in EBIDTA %	11.81	59.77	8.39	37.27	12.19	-3.87	-8.30	26.78	30.41	19.96
	Growth in PAT - %	16.56	167.33	0.06	58.79	209.87	-82.37	-7.34	8,58	4.30	11.18

^{#:} Ratio calculated as (Free Reserves & Surplus + Deferred Tax Liability) over Equity Share Capital

A TRISTS PRODUCT info@trisyscom.com PRINT@PRAGATI.COM



Regd. Office:

'Orchid Towers', 313, Valluvar Kottam High Road, Nungambakkam, Chennai 600034, Tamil Nadu, India Tel: (91)-44-28211000 Fax: (91)-44-28211002 • e-mail: corporate@orchidpharma.com Website: www.orchidpharma.com • Health portal: www.healthorchid.com

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CERTIFICATE OF INCORPORATION

OF

ORCHID PHARMACEUTICALS INC.

THE UNDERSIGNED, for the purpose of incorporating and organizing a corporation under the General Corporation Law of the State of Delaware, does hereby execute this Certificate of Incorporation and does hereby certify as follows:

FIRST:

The name of the Corporation is:

ORCHID PHARMACEUTICALS INC.

SECOND: The address of its registered office in the State of Delaware is 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is Corporation Service Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

FOURTH: The total number of shares of capital stock that the Corporation shall have the authority to issue is Three Thousand (3,000) Common Stock Shares, with no par value.

FIFTH:

The name and mailing address of the sole incorporator is as

follows:

George Vanarthos Alston & Bird LLP 90 Park Avenue New York, NY 10016

> State of Delaware Secretary of State Division of Corporations Delivered 11:37 AM 10/06/2004 FILED 11:16 AM 10/06/2004 SRV 040721979 - 3864231 FILE

SIXTH: The personal liability of the Directors of the Corporation to the Corporation or its stockholders for monetary damages is hereby eliminated to the fullest extent permitted under Section 102(b)(7) of the General Corporation Law of the State of Delaware.

SEVENTH: The Corporation's Board of Directors shall have the power to adopt, amend or repeal the Corporation's By-Laws by majority vote at any regular meeting of the Board of Directors, or at any special meeting of the Board of Directors, if notice thereof is contained in the notice of such special meeting, or by written consent as provided by Section 141(f) of the General Corporation Law of the State of Delaware.

EIGHTH: The Corporation is to have perpetual existence.

NINTH: The Corporation, to the fullest extent permitted by the provisions of Section 145 of the General Corporation Law of the State of Delaware, as the same may be amended and supplemented, shall indemnify its officers and directors from and against any and all of the expenses, liabilities or other matters referred to in or covered by said Section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any By-Law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such person.

TENTH: From time to time any of the provisions of this certificate of incorporation may be amended, altered or repealed, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the

NYC01/7743787v1

manner and at the time prescribed by said laws and all rights at any time conferred upon the stockholders of the corporation by this certificate of incorporation are granted subject to the provisions of this Article TENTH.

ELEVENTH: Blection of Directors need not be by written ballot.

IN WITNESS WHEREOF, the undersigned, being the sole incorporator herein before named, has executed this Certificate of Incorporation this day of October 5, 2004.

George Vanarthos Sole Incorporator

Redacted

EXHIBIT 18

Redacted

EXHIBIT 19

Redacted

EXHIBIT 20

Redacted

EXHIBIT 21

Redacted

EXHIBIT 22



Pfot No. 83-86 & 811-814
Sipcot industrial Park, kungattukottal,
Sriperumbudur (TK) - 602 105.
Kancheepuram District, Tarmii Nadu, INDIA.

A Division of Orchid Chemicals & Pharmaceuticals Ltd.,

December 07, 2007

CERTIFIED

Via Registered Mail

Return Receipt Requested

Howard Solomon Chairman & and CEO Forest Laboratories, Inc. 909 Third Avenue New York, NY 10022

Merz Phiema GmbH & Co. KGaA C/o G. Patrick Sage Hueschen & Sage, PLLC Kalamazoo Building, Seventh Floor 107 West Michigan Avenue Kalamazoo, MI 49007

Dr. Martin Zugel Merz Pharma GmbH & Co. KGaA Eckenheimer Landstrasse 100 D-60318 Frankfurt am Main Germany

Re: Memantine Hydrochloride Tablets, 5 mg and 10 mg. Paragraph IV Certification for U.S. Pat. 5,061,703.

Dear Sirs:

Orchid Healthcare, a Division of Orchid Chemicals & Pharmaceuticals Ltd. ("Orchid"), is providing the following information pursuant to § 505(j)(2)(B)(ii) of the Federal Food, Drug, and Cosmetic Act ("the Act"):

1. In order to obtain approval to engage in the commercial manufacture, use, or sale of a certain Memantine product, Orchid,

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Plot No. 83-86 & 81 1-814 Sipcot industrial Park, trungattukottal, Sriperumbudur (TK) - 602 705, Kancheepuram Distriot, Tarrill Nadu, INDIA.

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submitted to the Food and Drug Administration ("FDA") an Abbreviated New Drug Application ("ANDA") under § 505(j) of the Act that contains the required bioavailability or bioequivalence data or information. The FDA has documented the receipt of this application and has notified Orchid accordingly.

- 2. The ANDA number is 90-044.
- The established name for the Memantine product is Memantine Hydrochloride Tablets, 5 mg and 10mg. Forest Labs markets Memantine Hydrochloride tablets, 5 mg and 10 mg under the brand name Namenda.
- 4. The active ingredient, strength, and dosage form of the proposed drug product is Memantine Hydrochloride, 5 mg and 10 mg tablets.
- 5. The ANDA indicates that Orchid intends to market the Memantine product before the expiration date of U.S. Pat. No. 5,061,703 (the 703 parent). This patent is listed by the FDA in the Orange Book.
- 6. The ANDA indicates that the claims of the '703 patent, are invalid and/or will not be infringed by the commercial manufacture, use, or sale of the Memantine product. Below is a detailed statement of the factual and legal bases for Orchid's conclusions. This information is supplied for the sole purpose of complying with the above-referenced statutes. Accordingly, Orchid does not waive any attorney-client privilege or work product immunity concerning the subject matter of this communication.

L SUMMARY

Orchid's proposed memantine product will not infringe any claims of the '703 patent when properly construed. In addition, the claims of the '703 patent are invalid over the prior art, as well as under 35 U.S.C. § 101/112.

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Plot No. 83-86 & 811-814 Sipoot industrial Park, frungattukettal, Silperumbudur (TK) - 602 105. Kancheepuram District, Tamil Nadu, INDIA.

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The '703 patent indicates that:

Cerebral ischemia is characterized by a pathophysiological situation defined by an imbalance of neuronal stimulation mechanisms. In this context, the excessive inflow of calcium through NMDA receptor channels finally leads to the destruction of brain cells in specific brain areas (Rothmann & Olney, Trends Neuroșci 10, 1989, pp. 299).

Therefore, in order to treat or eliminate this pathological situation, an amagonistic intervention is required with regard to the NMDA receptor channels (Kemp et al., Trends Pharmacol, Sci. 8, 1987, pp. 414).

Col 2, In 46-56.

The '703 patent recites that "The present invention is aimed at ... employing compounds ... exhibiting an NMDA receptor channel-antagonistic and anticonvulsive action, for use in the prevention and treatment of cerebral ischemia." Col 2. In 67-col 3, In 3. The '703 patent further states that "[t]his objective can be achieved according to the invention by using the 1-amino adamantanes of formula (I)." Col 3, In 4-6.

The '703 patent asserts that the use of the claimed compounds prevents an impairment or further impairment - i.e., degeneration and loss of nerve cells - following ischemia. Therefore, the recited compounds allegedly are especially suited for the prevention and treatment of cerebral ischemia after apoplexy, open-heart surgery, cardiac standstill, subarachnoidal homorrhage, transient cerebro-ischemic attacks, perinatal

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Plot No. B3-86 & B11-B14 Sipcot industrial Park, trungatiukatial, Sriperumbudur (1K) - 602 105. Kancheepuram District, Tamii Nadu, INDIA.

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II. THE '703 PATENT

The '703 patent issued October 29, 1991 from an application filed April 11, 1990. The '703 patent claims priority to European patent application No. 89106657, filed April 14, 1989. An ex parte reexamination request was filed on August 18, 2004. The '703 patent reissued with amended and additional claims on November 7, 2006.

The '703 patent is listed in the U.S. Food and Drug Administration's Orange Book for Namenda[®], which contains memantine as the active ingredient.

A. The Specification

The '703 patent indicates that it is directed to methods for the prevention and treatment of cerebral ischemia using an adamantane derivative of the formula

$$R_3$$
 R_3
 R_4
 R_5

wherein R₁ and R₂ are identical or different, representing hydrogen or a straight or branched alkyl group of 1 to 6 C atoms or, in conjunction with N, a heterocyclic group with 5 or 6 ring C atoms: wherein R₃ and R₄ are identical or different, being selected from hydrogen, a straight or branched alkyl group of 1 to 6 C atoms, a cycloalkyl group with 5 or 6 C atoms, and phenyl: and wherein R₃ is hydrogen or a straight or branched C₁ -C₆ alkyl group. See 703 patent Abstract.

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asphyxia, anoxia, hypoglycomia, apneca and Alzheimer's disease. The amount employed is a cerebral ischemia-alleviating or preventive amount. Col.3, In 6-17.

The purported efficacy of the recited compounds with respect to antagonistic intervention in NMDA receptor channels is described in a series of in vitro and in vivo experiments that are detailed in the specification. Col 4, ln 55 - col 7, ln 59.

The specification concludes with various examples showing pharmaceutical compositions and methods for synthesizing different adamantane derivatives. Cols. 7 – 13.

B. The Claims

Initially Issued Claims

The *703 patent initially issued with 13 claims. Claim 1, then the only independent claim, is reproduced below

I. A method for the prevention or treatment of cerebral ischemia comprising the step of administering, to a patient in need thereof, an effective amount of an adamantane derivative of the general formula

wherein

R₁ and R₂ are identical or different and represent hydrogen or a straight or branched alkyl group of 1 to 6 C atoms or, in conjunction with N, a heterocyclic group with 5 or 6 ring C atoms;

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Pioi No. 83-86 & 811-814 Sipcot industrial Park, Irungattúkottal, Silperumbudur (TK) - 602 105. Kancheepuram District, Tamil Nadu, INDIA.

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wherein

R₁ and R₂ are identical or different, being selected from hydrogen, a straight or branched alkyl group of 1 to 6 C atoms, a cycloalkyl group with 5 or 6 C atoms, and phenyl;

wherein R5 is hydrogen or a straight or branched C1 -C6 alkyl group. or a pharmaceutically-acceptable salt thereof.

Dependent claims 2-9 describe various substituents for R₁-R₅. Dependent claims 10-13 are reproduced below.

- 10. A method according to claim I for the treatment of Alzheimer's disease.
- 11. A method of claim 1, wherein the adamantane derivative is administered in an effective cerebral ischemia-alleviating or preventive amount.
- 12. A method of claim 11, wherein the adamantane derivative is administered in the form of a composition containing the same together with a pharmaccutically-acceptable carrier or diluent.
- 13. A method of claim 11, wherein the adamantane derivative is administered in an amount effective to prevent degeneration and loss of nerve cells after ischemia.

Claims Issued After Reexamination

The '703 patent, after reexamination, contains nineteen claims, three of which are independent. Claims 1, 10, 14, and 17 are reproduced below. The language added during reexamination is italicized.

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Plot No. 83-86 & 81 I-81 4 Sipcot industrial Park, trungatlukoitai, Sriperumbudur (TK) - 602 108. Kancheepuram District, Tamii Nadu, INDIA.

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1. A method for the prevention or treatment of cerebral ischemia comprising the step of orally administering, to a patient diagnosed with Alzheimer's disease and in need thereof, an effective amount of an adamaptane derivative of the general formula

wherein

 R_1 and R_2 are identical or different and represent hydrogen or a straight or branched alkyl group of 1 to 6 C atoms or, in conjunction with N_s a heterocyclic group with 5 or 6 ring C atoms:

wherein

 R_3 and R_4 are identical or different, being selected from hydrogen, a straight or branched alkyl group of 1 to 6 C atoms, a cycloalkyl group with 5 or 6 C atoms, and phenyl;

wherein

 R_S is hydrogen or a straight or branched C_1 - C_h alkyl group, and, wherein

 R_1 R_2 R_3 , R_4 , and R_5 do not all represent hydrogen simultaneously; or a pharmaceutically-acceptable salt thereof.

- 10. A method according to claim 1 for the treatment of Alzheimer's disease wherein said adamantine derivative is memantine and said effective amount is from about 0.01 to 100 mg/kg.
- 14. A method for the prevention or treatment of cerebral ischemia comprising orally administering to a patient diagnosed with Alzheimer's

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disease and in need of such treatment an effective amount of an adamentane derivative of the general formula

$$R_1$$
 N R_2 R_3 R_4 R_5

wnerein

R1 and R2 are identical or different and represent hydrogen or a straight or branched alkyl group of I to 6 C atoms or, in conjunction with N. a heterocyclic group with 5 or 6 ring C atoms;

wherein

Rs and Rs are identical or different, being selected from hydrogen, a straight or branched alkyl group of 1 to 6 C atoms, a cycloalkyl group with 5 or 6 C atoms, and phenyl;

wherein

Rs is hydrogen or a straight or branched C1-C6 alkyl group, and wherein

 R_1 R_2 R_3 , R_4 and R_5 do not all represent hydrogen simultaneously: or a pharmaceutically-acceptable salt thereof.

17 A method for the treatment of an imbalance of neuronal stimulation ofter Alzheimer's disease, comprising orally administering to a patient diagnosed with Alzheimer's disease and in need of such treatment an effective amount of an adamantane derivative of the general formula

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Piot No. B3-86 & B1 T-B1 4 Sipcot industrial Park, trungattukattal, Sriperumbudur (TK) - 602 105. Kancheepuram District, Tamil Nadu, INDIA.

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$$R_1$$
 N R_2 R_3 R_4 R_5

wherein

 R_I and R_2 are identical or different and represent hydrogen or a straight or branched alkyl group of I to 6. C atoms or, in conjunction with N, a heterocyclic group with 5 or 6 ring C atoms;

wherein

 R_3 and R_4 are identical or different, being selected from hydrogen, a straight or branched alkyl group of 1 to 6 C atoms, a cycloalkyl group with 5 or 6 C atoms, and phenyl;

wherein

 R_3 is hydrogen or a straight or branched C_1 - C_6 alkyl group, and wherein

 R_1 R_2 R_3 , R_4 and R_5 do not all represent hydrogen simultaneously: or a pharmoceutically-acceptable sait thereof.

C. The Prosecution History

The following is not an exhaustive summary of the prosecution history of the '703 patent from the earliest filing (i.e. from the filing of European Application No. 89106657 filed on April 14, 1989), including reissue proceedings initiated on August 18, 2004. Rather, it is limited to a summation of certain portions of the prosecution history.

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Piot No. 85-86 & 811-814 Sipcot Industrial Park, trungattukottat, Sriperumbudur (TK) - 602 105. Kancheepuram District, Tamii Nadu, INDIA.

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The Initial U.S. Application

The application resulting in the initial '703 patent was filed on April 11, 1990. The application was filed with 13 claims that were, with the exception of claim 10, allowed without amendment. Claim 10, as filed, is reproduced below.

10. A method according to claim 1 for the prevention or treatment of Alzheimer's disease.

On January 15, 1991, the Patent Office issued an Office Action allowing claims 1-9 and 11-13, but rejecting claim 10 under §§ 101 and 112 as not enabled—as the Examiner found no support for the claim that the designated compounds "prevent Alzheimer's disease." Office Action, Jan. 15, 1991 at 2. Claim 10 was also rejected under § 103 as unpatentable over European Application 0227410, which disclosed that "adamantane derivatives may be used to treat Alzheimer's disease and Alzheimer dementia." Id. at 3.

In response, the applicants amended claim 10 by deleting the words "prevention or" from the claim to limit the claim to "treatment" of Alzheimer's disease. Amendment, February 7 1991, at 1. The applicants also argued that EP 0227410 did not suggest that the adamantyl group was "anything like a critical substituent in the complex compounds suggested by the reference for the treatment of Alzheimer's disease or Alzheimer dementia." Id. at 2. Therefore, the applicants asserted, there is nothing in the reference which indicates that the adamantyl group "has anything to do with the effectiveness of the compounds claimed ... to be useful in the treatment of Alzheimer's disease or Alzheimer dementia." Id at 2.

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On March 29, 1991, the Patent Office issued a Final Office Action allowing claims 1-9 and 11-13, and rejecting claim 10. The Examiner noted that no agreement had been reached regarding claim 10 during a telephonic interview. In particular, the examiner found there was "insufficient exemplary support for 'treatment of Alzheimer's disease."

The applicants filed a Request for Reconsideration and Withdrawal of Finality of the Final Rejection, noting that the Final Office Action contained a new basis for rejecting claim 10. In particular, the applicants noted that the Examiner initially rejected claim 10 for being directed to the prevention of Alzheimer's disease, whereas the subsequent rejection focused on the treatment of Alzheimer's disease being incredible Request, May 20, 1991 at 1.

In response to the applicant's request for withdrawal of finality of the final rejection, the Examiner issued a Notice of Allowability of claims 1 through 13 on May 29, 1991. The '703 patent issued on October 29, 1991. On December 16, 1991, applicants filed a Request for Entry of Correction for certain typographical errors.

Request For Extension Of Patent Term-The '703 Patent

the December 9, 2003, Forest Laboratories - which is both the exclusive licensee of the '703 patent and the NDA holder for Namenda " - filed a Request for Extension of Patent Term under 35 U.S.C. § 156 for the '703 patent. Forest Labs indicated that memantine was approved by FDA on October 16, 2003 for the treatment of moderate to severe dementia of the Alzheimer's type. Request for Patent Term Extension at 2, 3, Forest Labs also asserted that claim 10 of the '703 patent "is explicitly directed to treatment of Alzheimer's disease, a method for using the approved product, NAMENDA 1M (memantine hydrochloride), referring to claim 1 for the generic formula

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Piot No. B3-B6 & B1T-B14 Sipcet Industrial Park, Irungatlukottai, Sriperumbudur (TK) - 602 105, Kancheepuram District, Tamii Nadu, INDIA,

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which included the approved active ingredient as explained infra. Claim 1 also covers a method of using the approved product in a generic manner." *Id.* at 5-6. Forest Labs also asserted that claims 2, 3, 6, 8, and 11-13 "cover a method for using" memantine. *Id.* at 6.

On December 27, 2006, Forest filed a Supplement to Request for Extension of Patent Term. The applicants noted that the '703 patent was reexamined by the Patent Office and as a result of the reexamination proceedings claims 1 and 10 were amended and claims 14-19 were added. Supplemental Request for Patent Term Extension at 1. The applicants asserted that "fajil information previously provided ... remains accurate. In particular, the '703 patent continues to claim a method of using [memantine], which is approved for the treatment of moderate to severe dementia of the Alzheimer's type, because claim 10 remains explicitly directed to the treatment of Alzheimer's disease and refers to independent claim 1 for the generic formula that continues to encompass-memantine" ht at 2.

Request For Extension Of Patent Term-The '560 Patent

Also on December 9, 2003, Forest filed a Request for Extension of Patent Term under 35 U.S.C. § 156 for U.S. Patent No. 5,614,560. In that petition, Forest again noted that memantine was approved for the treatment of moderate to severe dementia of the Alzheimer's type. Request for Patent Term Extension at 2. Forest Labs also asserted that "Claim 17 of the '560 patent depends from claim 1 and is specifically directed to a method of using the approved product, NAMENDATM (memantine hydrochloride), for reducing neuronal degeneration in a mammal subject to a long-term non-ischemic

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The '560 patent issued March' 25, 1997 from an application filed April 11, 1995. The '560 patent claims priority to an application filed on April 4, 1991. The claims of the '560 patent are directed to a method for reducing non-ischemic NMDA receptor-mediated neuronal degeneration in a mammal by administering memantine



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neurodegenerative disease, such as Alzheimer's disease (see '560 patent: col 3, lines 25-31). Claim I also covers a method of using the approved product in a generic manner." Id. at 5-6. Forest Lubs also indicated that claims 2 and 4-8 "cover a method for using" memantine, Id. at 6.

The Reissue Application—The '703 Patent

The owner of the '703 patent filed a request for ex parte reexamination on August 18, 2004, on the grounds that a substantial new question of patentability might be deemed to exist under §§ 102 or 103 with respect to claims 1-3, 6, 8, and 10-13, because five prior art references were not considered during prosecution. Applicants also filed a proposed amendment to include the proviso that all the variables do not represent hydrogen simultaneously. The alleged purpose of the amendment was to exclude 1-amino adamantane from the subject matter covered by the claims.

On October 18, 2004, the Patent Office issued an Order Granting the Request for Ex Parte Regnamination. The Patent Office noted that the disclosed prior art references raised a substantial new question of patentability as to claims 1-3, 6, 8, and 10-13 because the disclosed prior art references teach and discuss the administration of adamantine derivatives (memantine or amantadine) for the treatment of cerebral disorders.

The Patent Office issued an Office Action dated March 10, 2005, finding claims 4, 5, 7, and 9 patentable. The Examiner rejected claims 1-3, 6, 8, and 10-13 as anticipated by the prior art references teaching that memantine is effective in treating cerebral ischemia and Alzheimer's disease or complications associated with the two disorders. Office Action at 2-3,

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Plot No. 83-86 & 811-814 Sipcot Industrial Park, Irungathukottal, Sriperumbudur (TK) - 602 105. Kancheepuram District, Tamil Nadu, INDIA.

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in May 2005, applicants amended claim 1 to specify oral administration of an adamantane derivative to a patient diagnosed with Alzheimer's disease. Amendment, May 9, 2005 at 2. The applicants also added new claims 14-25. Claim 14 was directed to "a method for the treatment of cerebral ischemia comprising orally administering to a patient diagnosed with Alzheimer's disease and in need of such treatment an effective amount of an adamantane derivative" Claim 17 was directed to "a method for the creatment of an imbalance of neuronal stimulation after Alzheimer's disease, comprising orally administering to a patient diagnosed with Alzheimer's disease and in need of such treatment an effective amount of an adamantane derivative " Claim 20 was directed to "a method for blocking an excessive influx of calcium through NMDA receptor channels in a patient diagnosed with Alzheimer's disease" Claim 23 was directed to "a method for blocking the NMDA receptor in a patient diagnosed with Alzheimer's disease" ld. at 3-6.

in discussing the amended claims, the applicants noted that "ftlhe present invention relates to the discovery that certain adamantane derivatives (especially memantine) can be used to treat patients diagnosed with Alzheimer's disease." Amendment, May 9, 2005 at 8. The applicants further noted that as of May 2005, only five drugs were approved by FDA to treat patients diagnosed with Alzheimer's. Of those five drugs, name were available in 1989, and one was no longer marketed because of liver toxicity concerns. See Id. at 8. They also noted that memantine was the only drug approved for treatment of moderate to severe Alzheimer's disease, as well as the only such drug that did not function as a cholinesterase inhibitor. Id.

The Applicants also asserted that the pending claims were patentable over the prior are because the claimed methods of use provided surprising and unexpected benefits for at least three reasons: (1) in 1989, memantine was contraindicated for "severe

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confusional states," which included Alzheimer's disease patients, and was reported to cause "agitation" as a side effect, a common symptom experienced by Alzheimer's disease patients; (2) memantine was commonly believed to be a dopaminergic agent, which were thought to promote psychosis; and (3) the only published study involving the administration of memantine to Alzheimer's disease patients "plainly concluded that memantine is not effective for treatment of Alzheimer's disease." Id. at 10.

The Applicants argued that the Examiner improperly rejected the claims as the prior art references cited did not disclose the oral administration of memantine to a patient "diagnosed with Alzheimer's disease," as required by claim 1. Though the Applicants conceded that the Fleischhacker reference taught the administration of memantine to patients diagnosed with senile dementia of the Alzheimer type for the treatment of that condition, they argued that reference taught the administration of memantine intravenously. See Id. at 16-17.

Finally, the Applicants argued that the reissue claims were patentable because new claims 14-25 were narrower than the original claims, as the new claims require orally administering an adamantine derivative (claims 14-25), administering an adamantine derivative to a patient "diagnosed with Alzheimer's disease" (claims 14-25), "treatment" only (claims 14-19), treatment of an "imbalance of neuronal stimulation after Alzheimer's disease" (claims 17-19), "blocking an excessive influx of calcium through NMDA receptor channels" (claims 20-22), and "blocking the NMDA receptor" (claims 23-25). Id. at 17-18. The Applicants further argued that each of new claims 14-25 was patentable over the prior art because all of the claims require the step of "orally" administering an adamantine derivative to a patient "diagnosed with Alzheimer's disease." Id. at 18.

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The Applicants submitted two Rule 132 Declarations in support of their arguments for patentability. One declaration – from Howard Fillit, M.D. – asserts that at the time of invention, the cholinergic approach to Alzheimer's disease treatment developed as the predominant theory, and that any proposed treatment that "strayed from this theory would have been considered extremely speculative." Fillit Decl. at § 9. Dr. Fillit maintains that "in 1989, it would have been very surprising to find that memantine (thought to be a dopaminergic agent in 1989 and thereby unrelated to the cholinergic theory of treatment) could be successfully used for the treatment of Alzheimer's disease patients." Id.

Referring to the prior art relied upon by the Examiner to reject the claims, Dr. Fillit argued that "[i]f Physicians had read the [prior art references] in 1989, we would have recognized that these articles do not suggest the administration of memantine to patients diagnosed with Alzheimer's disease, which was a recognizable and diagnosable disease throughout the 1980s Further, by 1989, the only publication that expressly described the administration of memantine to Alzheimer's disease patients was Fleischhacker, and this article expressly concludes that memantine is not effective for the treatment of Alzheimer's disease." Id. at § 32.

The second declaration was signed by Dr. Myron Weiner. Dr. Weiner asserted that memantine offered a number of unexpected results: (1) unexpected efficacy of a drug contraindicated for severe confusional states and having the side effect of agitation; (2) unexpected efficacy of a dopaminergic agent; and (3) unexpected existence and efficacy of NMDA antagonism. Weiner Decl. at ¶ 18-26. Dr. Weiner concluded that "[b]ased on my over 20 years experience in researching, diagnosing, and treating Alzheimer's disease patients: it was surprising and unexpected to learn that memantine could be effectively used for the treatment of patients diagnosed with Alzheimer's disease. Physicians would

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Ploi No. B3-B6 & B11-B14 Sipoat Industrial Park, Irungattukottal, Sriperumbudur (TK) - 602 105. Kancheepuram District, Tamii Nadu, INDIA.

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have had no reasonable expectation in 1989 that memantine could have been successfully used in this manner." Id. at \$27.

On August 16, 2005, the Patent Office issued a Final Office Action, allowing claims 1-9 and 11-19. Claim 10 was rejected under § 112 as indefinite because it did not further limit claim 1, as amended. Claims 20-25 were rejected under § 305 as enlarging the scope of the claims of the patent being reexamined. The Examiner noted that the patent owner's amendment filed on May 9, 2005 necessitated the new grounds of rejection.

On September 26, 2005, the Examiner filed an Ex Parte Reexamination Interview Summary. The record notes simply that the outcome of the interview was embodied in an Examiner's Amendment.

On October 17, 2005, the Applicants filed an Amendment Pursuant to 37 C.F.R. §§ 1.116 and 1.530. In the Amendment, the Applicants amended claim 10 to add the limitation "wherein said adamantane derivative is memantine and said effective amount is from about 0.01 to 100 mg/kg" and cancelled claims 20-25. The Applicants also noted that in the Examiner Interview, the Examiner agreed that canceling claims 20-25 and amending claim 10 to specify the administration of memantine and its effective amount would overcome the rejection of claim 10 under § 112 and moot the rejection of claims 20-25 under § 305.

The Patent Office issued a Notice of Intent to Issue Ex Parte Reexamination Certificate on December 6, 2005. Pursuant to an Examiner's Amendment, Reissue claim I specifies "oral" administration of the compound to a patient "diagnosed with <u>Alzheimer's disease</u>." where all of the active groups $(R_1, R_2, R_3, R_4, \text{ and } R_5)$ are not all hydrogen simultaneously, and Reissue claim 10 specifies that the "adamantane derivative

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is memantine and said effective amount is from about 0.01 to 100 mg/kg." Pages 2, 3. As the reasons for allowance, the Examiner recited that the reissue claims were allowable over the prior are because those references purportedly "do not teach [that] the oral administration of ... memantine ... is effective for the prevention or treatment of cerebral ischemia in a patient diagnosed with Alzheimer's disease." Page 3.

On April 6, 2006, the Patent Office issued a Corrected Notice of Intent-to Issue Ex Parte Reexamination Certificate, citing the same reasons for allowance given above,

On June 5, 2007, the Patent Office issued a Certificate of Correction to correct typographical errors.

III. NON-INFRINGEMENT ANALYSIS

Applicable Law 1.

1. Claim Construction

Claims must be construed before determining whether they are valid or infringed. Amazon com. Inc. v. Barnesandnable.com. Inc., 239 F.3d 1343, 1351 (Fed. Cir. 2001); Markman v. Westview Instruments, Inc., 52 F.3d 967, 976, 996 n. 7 (Fed. Cir., 1995) (en bane), aff'd, 517 U.S. 370 (1996). Claims must be construed the same way for determining validity and infringement. Id. If possible, claims should be construed to uphold their validity. Modine Mfg. Co. v. U.S. Int'l Trade Comm'n, 75 F.3d 1945, 1557 (Fed. Cir. 1996).

The claim construction inquiry begins in all cases with the actual words of the claims. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). Claim terms are to be given their ordinary and customary meanings as they would have been understood by a person of ordinary skill in the art in the context of the patent at the time

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of the invention, i.e., as of the effective filing date of the patent application. id. at 1312-14. To properly interpret claim terms, the "intrinsic" record, including the claims, the specification and the prosecution history, must be consulted (although the prosecution history may be less useful than the claims and specification). Id. at 1314-24. It may also be appropriate to consider "extrinsic" evidence, i.e., evidence external to the patent and prosecution history, such as expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is generally less reliable than the intrinsic record. ld. at 1317-19 and 1322-23. While there is no "magic formula," "catechism" or "rigid algorithm" for conducting claim construction, and one is not "barred from considering any particular sources or required to analyze sources in any specific sequence," one must "attach the appropriate weight" to the various sources and may not "contradict claim meaning that is unambiguous in light of the intrinsic evidence." Id. at 1324. The goal is to achieve connect claim construction without imposing improper limitations on the claims. Id. If a claim is ambiguous even after applying all of the available claim construction tools, the claim, if possible, should be construed to preserve its validity. Id. at 1327-28.

"Generally, the preamble does not limit the claims." Allen Engineering Corp. v. Bartell Inclustries. Inc., 299 F.3d 1336, 1346 (Fed. Cir. 2002). A preamble that simply states the intended use of the claimed invention usually does not limit the scope of the claim. See C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1350 (Fed. Cir. 1998). "If the preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as limiting." Allen Engineering Corp., 299 F.3d at 1346 (citing Kropa v. Robie, 187 F.2d 150, 152 (CCPA 1951)).

A dependent claim must incorporate all of the limitations of and be narrower in scope than the claim from which it depends. See Jeneric/Pentron, Inc. v. Dillon Co., Inc.,

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205 F.3d 1377, 1383 (Fed. Cir. 2000) (A "dependent claim, by nature, incorporates all the limitations of the claim to which it refers."); Desper Prods., Inc. v. Quant Labs, Inc., 157 F.3d 1325, 1338 n.5 (Fed. Cir. 1998) (dependent claims "necessarily must be narrower than the independent claims").

2. Infringement Law

Once a claim has been construed, it is compared to an accused product or method to determine whether that product or method infringes the claim. Markman, 52 F.3d at 976. To establish infringement, every claim limitation or its equivalent must be found in an accused product or method. Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 520 U.S. 17, 29, 40 (1997), Infringement must be proved by a preponderance of the evidence. Bayer AG v. Elan Pharm. Research Corp., 212 F.3d 1241. If a claim "reads on" an accused product or method, i.e., the accused product or method embodies each limitation set forth in the claim exactly, the accused product or method is said to literally infringe the claim. Cole v. Kimberly-Clark Corp., 102 F.3d 524, 532 (Fed. Cir. 1996).

Infringement may also be found under the doctrine of equivalents if the accused product or method includes features that are identical or equivalent to each claimed element. Warner-Jenkinson, 520 U.S. at 21 and 40. The determination of equivalency, which is evaluated as of the time of infringement, is an objective inquiry applied on an element-by-element basis taking into account the role of each claim element in the context of the claim. Id at 18, 29, 37 and 40.

The Supreme Court has not mandated any specific approach for evaluating equivalency. *Al.* at 39-40. Among the recognized approaches that may be applied are the so-called triple identity (function-way-result) test, the insubstantial differences test and/or

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the important objective factor of known interchangeability. Id. at 19-20, 25, 36 and 39-40.

There are a number of limits on the application of the doctrine of For example, the doctrine of equivalents cannot be applied so as to equivalents. effectively climinate a claim limitation in its entirety. Warner-Jenkinson, 520 U.S. at 29. Moreover, limitations may not be afforded a scope of equivalency that effectively results in a claim that does not patentably distinguish the prior art. See, e.g., Wilson Sporting Goods Un. v. David Geoffrey & Associates, 904 F.2d 677, 683 (Fed. Cir. 1990). Additionally, prosecution history estoppel operates to prevent recapture, through the doctrine of equivalents, of coverage of subject matter that was relinquished by amendment or argument during prosecution. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 733-34 (2002).

Phrsuant to 35 U.S.C. § 271(b), "whoever actively induces infringement of a patent shall be liable as an infringer." Interpreting this section, the Court of Appeals for the Federal Circuit requires the plaintiff to prove that the defendant's "actions induced infringing acts and that [they] knew or should have known [their] actions would induce actual infringement." Warner-Lambert Company v. Apotex Corp., 316 F.3d 1348 (Fed. Cir. 2003) (citing Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 553 (Fed. Cir. 1990). However, the Federal Circuit has also concluded that "knowledge of the acts alleged to constitute infringement is not enough." Id. Rather, a finding of active inducement requires proof of actual intent to cause the acts which constitute the Thus, "inducement requires proof that the accused infringer infringement. ld. knowingly aided and abetted another's direct infringement of the patent." Id. (citing Rodine PLC v. Seagate Tech., Inc., 174 F.3d 1294, 1306 (Fed. Cir. 1999)). Inducement

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of infringement also requires the commission of an act that constitutes inducement, and not merely the power to act or the failure to act. See Beverly Hills Fun Co. v. Royal Sovereign Corp., 21 F.3d 1558, 1569 (Fed. Cir. 1994).

B. Analysis of the '703 Patent Claims

1. Construction of the '703 patent claims

According to their plain meaning, claims 1-13 are directed to, *inter alia*, a method for the prevention or treatment of cerebral ischemia comprising the step of orally administering an adamantane derivative to a patient diagnosed with Alzheimer's disease. Claims 14-16 are directed to, *inter alia*, a method for the treatment of cerebral ischemia comprising the step of orally administering an adamantane derivative to a patient diagnosed with Alzheimer's disease.

The Online Medical Dictionary² defines "cerebral ischemia" as "deficiency in blood supply to the brain." The specification indicates that the claims are not directed to a method of treating a deficiency in blood supply to the brain, however, but rather a method of treating or preventing degeneration and nerve loss resulting from cerebral ischemia:

[C]erebral ischemia is characterized by a pathophysiological situation defined by an imbalance of neuronal stimulation mechanisms. In this context, the excessive inflow of calcium through NMDA receptor channels finally leads to the destruction of brain cells in specific brain areas.

Available online at: http://eancerweb.ncl.ac.uk/cgi-bin/omd?query=&action=Home.

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Therefore, in order to treat or eliminate this pathological situation, an antagonistic intervention is required with regard to the NMDA receptor channels.

703 patent at col. 2. 1. 46-55 (citations omitted). The specification then explains that:

The present invention is aimed at preparing and employing compounds which can be chemically generated by simple methods, exhibiting an NMDA receptor channel-antagonistic and anticonvulsive action, for use in the prevention and treatment of cerebral ischemia.

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It has been found unexpectedly that the use of these compounds prevents an impairment or further impairment, i.e., degeneration and loss of nerve cells. Therefore, the adamantane derivatives of formula (I) are especially suited for the prevention and treatment of cerebral ischemia after . . . Alzheimer's disease.

Id. at col 2. 1. 67 - col. 3, 1. 16.

The '703 patent purports to show the efficacy of the claimed methods of use for the adamantane derivatives in a pharmacological test titled "Protection Against Cerebral Ischemia." '703 patent at col 6, in 27-64. In that test, both carotid arteries of a rat are occluded and the blood pressure is lowered by withdrawal of blood for ten minutes. "The ischemia is terminated by opening the carotids and reinfusion of the withdrawn blood." Id. It was well-known that periods of cerebral ischemia lead to large increases in

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extracellular concentrations of glutamate and aspartate resulting in neuronal brain damage. Kemp et al., TIPS, 1987, 8, 414-15. It was also well-known that this imbalance of excitatory amino acids leads to an excessive stimulation of the NMDA receptors, leading to a lethal accumulation of intracellular calcium ions and brain cell death. Id. The '703 patent similarly recites that cerebral ischemia results in an imbalance of neuronal stimulation mechanisms that results in excessive inflow of calcium through the NMDA receptor channel leading to the destruction of brain cells. '703 patent at col. 2, 1, 46-52. In discussing the carotid artery results, the '703 patent specification concludes that "the test results show that the compounds according to formula (I) exhibit a neuroprotective action in cerebral ischemia." Id. at col. 6, 1, 58-60.

Claims 17-19 are directed to a method for the treatment of an "imbalance of neuronal stimulation after Alzheimer's disease, comprising orally administering to a patient diagnosed with Alzheimer's disease" an adamantane derivative. In the May 2005 Amendment, the applicants indicated that, "[a]s defined in the '703 patent, 'cerebral ischemia' refers to an imbalance of neuronal stimulation in which an excessive influx of calcium through NMDA receptor channels leads to degeneration and loss of brain cells."

Id. at 111 Accordingly, the methods of claims 17-19 are directed to the treatment of cerebral ischemia in a patient diagnosed with Alzheimer's disease.

The '703 patent is predicated on the notion that Alzheimer's disease (among other conditions) is a cause of cerebral ischemia. Thus, the specification indicates that the use of adamantane derivatives "prevents an impairment or further impairment, i.e., degeneration and loss of nerve cells, after ischemia," and that adamantane derivatives are

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Claims 17-19 differ from claim 1 (and the claims dependent thereon) because claim 1 encompass methods of "prevention or treatment of cerebral ischemia," whereas claims 17-19 are limited to methods of treatment.



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"especially suited for the prevention and treatment of cerebral ischemia after ... Alzheimer's disease." '703 patent at col 3, ln 7-16. In light of the plain language of the claims and the specification, the claims of the '703 patent are directed to a method for the treatment or prevention of neurodegeneration resulting from cerebral ischemia caused by Alzheimer's disease.

The prosecution history confirms that the claims of the '703 patent are directed to a method for the treatment and prevention of neurodegeneration resulting from cerebral ischemia, after Alzheimer's disease. For instance, in the May 2005 Amendment, the applicants amended claim I to include the limitation "diagnosed with Alzheimer's disease" and referred to column 3, lines 7-16 and claim 10 as written support for that proposed claim element. The Applicants maintained that claims 14-16 were distinguished from cited prior art because the prior art did not disclose or suggest the treatment of "cerebral ischemia" and that claims 17-19 were distinguished because the prior art did not teach or suggest the treatment of an "imbalance of neuronal stimulation after Alzheimer's disease." In the August 2005 Office Action, the Examiner accepted the Applicant's arguments, indicating that "the prior art does not actually teach any of the adamantane derivatives to treat cerebral ischemia and Alzheimer's disease together." August 10, 2005 Office Action at 2, (emphasis added). And the Examiner rejected claim 10, which at the time was directed to a "method of claim I for the treatment of Alzheimer's disease," for not further limiting claim 1 as amended to include the recitation "diagnosed with Alzheimer's disease," For these reasons, each of the '703 patent claims is limited to a method for preventing or treating neuronal degeneration resulting from cerebral ischemia in a patient with Alzheimer's disease.

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 Orchid's Proposed Generic Memantine Products Will Not Infringe Any Valid Claim of the '703 Patent

(a) Claims Encompassing Memantine

Orchid's proposed labeling indicates that it does not seek approval for its proposed generic memantine product for the treatment of cerebral ischemia, nor will it be indicated for use in the treatment of cerebral ischemia. Nor will Orchid's proposed memantine product be indicated for the treatment of cerebral ischemia in patients with Alzheimer's disease, as required by the claims of the '703 patent. Orchid's proposed product will be indicated for treatment of dementia of the Alzheimer's type. The proposed indication for Orchid's generic memantine product accordingly is distinct from the claimed methods of the '703 patent (insofar as those claims encompass methods of using memantine) because the claimed methods necessarily involve "employing compounds". exhibiting an NMDA receptor channel-antagonistic and anticonvulsive action, for use in the treatment and prevention of cerebral ischemia." '703 patent at col. 2, 1, 67 - col. 3, L. 3.

Moreover, the claimed methods of the '703 patent require the use of memantine to prevent "degeneration and loss of nerve cells, after ischemia." *Id.* at col. 3, 1, 9-10. Orchid's proposed product label will indicate that there is no evidence that its proposed generic memantine product "prevents or slows neurodegeneration in patients with Alzheimer's disease." In fact, there are no known methods for treating the underlying cause of Alzheimer's disease. For these reasons, Orchid's proposed memantine product will not infringe any valid claim of the '703 patent.

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⁴ http://www.nin.nih.gov.Alzheimers/AlzheimersInformation/Treatment/.



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Orchid's proposed memantine product will not infringe any valid claim of the 1703 patent under the doctrine of equivalents because attempting to do so would effectively eliminate the claim limitation "treatment of cerebral ischemia" in its entirety. Moreover, the doctrine of equivalents may not be used to encompass Orchid's proposed memantine product because doing so would create a scope of equivalency that effectively results in a claim that does not patentably distinguish the prior art. Additionally, prosecution history estoppel operates to prevent the use of the doctrine of equivalents to cover Orchid's proposed memantine product because of amendments and arguments made during prosecution. For example, the patentee is estopped from arguing that the claims of the '703 parent cover the administration of memantine for the treatment of moderate to severe dementia of the Alzheimer's type because during prosecution the applicants asserted their claims were distinguished from the prior art Fleischhacker article, which they admitted discloses the administration of memantine to treat senile dementia of the Alzheimer's type, on the grounds that the claims of the '703 patent were limited to the administration of adamantane derivatives for the treatment of cerebral ischemia and the administration of memantine for the treatment of Alzheimer's disease. See 8/18/2004 Request for Reexamination at 8. Forest further argued that the claims were limited to the treatment of cerebral ischemia in order to overcome a § 102 rejection. See 5.9/2005 Amendment at 10 & 18. The Examiner ultimately agreed, allowing the claims on the basis that "the prior art does not actually teach any of the adamantane derivatives to treat cerebral ischemia and Alzheimer's disease together," See 8/16/2005 Office For these reasons, Orchid's proposed generic memantine product will not Action. infringe claims 1-3, 6, 8, and 10-19 of the '703 patent.

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(b) Claims to the Use of Compounds Other Than Memantine

Claims 4, 5, 7, and 9 of the '703 patent are limited to methods of administering compounds other than memantine. For the general formula shown in claim 1, claim 4 requires that R₃ and R₄ be an ethyl substituent, claim 5 requires that R₃ be an ethyl, isopropyl, or cyclohexyl substituent, claim 7 requires that R₁ be a methyl or ethyl substituent, and claim 9 requires that R₃ be an ethyl substituent. As noted by Forest, memantine is represented by the general formula shown in claim 1 when R₁ and R₂ are hydrogen, one of R₃, R₄, and R₅ is hydrogen and the remaining two of R₃, R₄, and R₅ are methyl. See Request for Extension of Patent Term, December 9, 2003 at 6. Thus, Orchid's proposed generic memantine product will not infringe claims 4, 5, 7, and 9 of the '703 patent.

IV. <u>INVALIDITY ANALYSIS</u>

A. Validity Law

A U.S. patent is presumed to be valid pursuant to 35 U.S.C. § 282. The presumption of validity can be overcome, but only by clear and convincing evidence that the patent is invalid. Sibia Neurosciences, Inc. v. Cadus Pharmaceutical Corp., 225 F.3d 1349, 1355 (Fed. Cir. 2000). The bases for holding a patent invalid include, among others, that the claims are anticipated by or would have been obvious in view of the prior art as discussed below, that the patent specification does not fully and sufficiently describe the invention (in violation of 35 U.S.C. § 112, first paragraph), and that the claims are indefinite (in violation of 35 U.S.C. § 112, second paragraph). In the case of

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prior art-based invalidity, the clear and convincing burden of proof may be more easily met through reliance upon prior art that was not before the examiner during prosecution. Sibia Neurosciences, id. at 1355-56. However, patent claims nonetheless have been held invalid based upon prior art that was before the examiner. E.g., Iron Grip Barbell Co. v. USA Sports, Inc., 392 F.3d 1317, 1319, 1322 n.2, 1325 (Fed. Cir. 2004) (claims obvious in view of the same and cumulative prior art); Brown v. JM, 265 F.3d 1349, 1351-54 (Fed. Cir. 2001) (claim anticipated by the same prior art); Celeritas Tech. Ltd v. Rockwell Int'l Corp., 150 F.3d 1354, 1360-61 (Fed. Cir. 1998) (claims anticipated by the same prior art).

Prior art may be in a number of forms. For example, the prior art may be (1) a patent or printed publication in the United States or a foreign country, or a public use or offer for sale in the United States, more than one year before the earliest effective U.S. filing date of the patent (35 U.S.C. §102(b)); or (2) a patent granted on, or a publication of, a patent application by another filed in the United States before the invention thereof by the applicant (35 U.S.C. §102(e)). Other examples are provided in 35 U.S.C. §102.

If all claimed elements/steps are disclosed, expressly or inherently, in a single prior art reference, that reference is said to "anticipate" the claimed invention, thereby invalidating the claim(s) under 35 U.S.C. §102 for lack of novelty. Transclean Corp. v. Bridgewood Services. Inc., 290 F.3d 1364, 1370 (Fed. Cir. 2002). The discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer. Atlas Powder Co. v. IRECO Inc., 190 F.3d 1342, 1347 (Fed. Cir. 1999). If granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless

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of whether it also covers subject matter not in the prior art. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 781 (Fed. Cir. 1985).

In the absence of an anticipatory prior art reference, the issue becomes whether "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). In determining obviousness, the following four factors must be considered: (1) the scope and content of the prior art; (2) any differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) any secondary considerations evidencing non-obviousness, such as commercial success, copying, long felt but unsolved needs, failures of others, unexpected results, etc. KSR Intl Co. v. Teleflex Inc., 550 U.S. ________, 82 USPQ2d 1385, 1391 (2007), cuing Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966).

In KSR, the Supreme Court confirmed that, in evaluating obviousness, "an expansive and flexible" approach is to be taken, i.e., "rigid and mandatory formulas" are improper—82 USPQ2d at 1395-97. More specifically, the Court indicated that combining prior art elements to perform their respective established functions is likely to be obvious when it does no more than yield predictable results. Id. at 1395. Indeed, if a design need or market pressure to solve a problem having a finite number of identified, predictable solutions provides good reason for an ordinarily skilled person to pursue the known options within his or her technical grasp, and if such pursuit leads to the anticipated success. "it is likely the product not of innovation but of ordinary skill and common sense" and "[i]n that instance the fact that a combination was obvious to try might show that it was obvious under §103." Id. at 1397. Conversely, when the prior art teaches

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away from combining known elements, discovery of a successful way to combine them is more likely not obvious. Id. at 1395.

Obviousness is not shown merely by demonstrating that each of the elements of a claimed combination was known in the art. Rather, "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine [or modify] the elements" as claimed. *Id.* at 1396. However, "any need or problem known in the field of endeavor at the time of invention and addressed by the patent" can provide such a reason, as the applicant's particular motivation/purpose does not control. *Id.* at 1397. Also, a precise teaching of claimed subject matter is not needed, as familiar items have obvious uses beyond their primary purposes, and one must consider inferences/creative steps that a person of ordinary skill ("a person of ordinary creativity, not an automaton") would have employed. *Id.* at 1396-97.

The level of skill in the art is determined entirely with reference to a hypothetical person of ordinary skill in the art presumed to be aware of all of the pertinent prior art. Relevant factors in determining the level of skill include the educational level of active workers in the field, the type of problems encountered in the art, prior art solutions to such problems, the rapidity of innovations in the art, and the sophistication of the technology. In re GPAC, Inc., 57 F.3d 1573, 1579 (Fed. Cir. 1995). Determination of the level of skill is often critical to determinations of whether prior art is "analogous art" and whether one of ordinary skill in the art would have been motivated to combine (or modify) prior art references. DyStar, 464 F.3d at 1361-63, 1370.

In order for secondary considerations evidence to be given substantial weight, the applicants must demonstrate that there is a nexus between such evidence and the merits

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of the claimed invention. Ormeo, 463 F.3d at 1311-13; GPAC, 57 F.3d at 1580. In other words, such evidence must arise from the claimed invention, rather than from extrinsic influences such as unclaimed features, prior art features, marketing activities, etc. *ld.* (and cited cases).

B. Analysis of the '703 Patent Claims

I. The Claims of the '703 Patent Are Obvious in Light of the Prior Art

The claims of the '703 patent are invalid as obvious in light of the prior art. As discussed above, all claims of the '703 patent are limited to a method for preventing or treating neuronal degeneration resulting from cerebral ischemia in a patient with Alzheimer's disease. The prior art teaches both the treatment of cerebral ischemia and the treatment Alzheimer's disease patients with memantine. Taking at face value the assertions in the '703 patent that Alzheimer's disease causes cerebral ischemia and that memantine prevents neuronal degeneration resulting from the Alzheimer's-induced ischemia, then treating an Alzheimer's patient with memantine would inherently treat any neuronal degeneration resulting from the Alzheimer's-induced ischemia.

The use of memantine to treat cerebral ischemia was well-known prior to the date of the **.**703 patent. For instance. Wesemann et Arzneimittelforschung/Drug Res. 1983, 33(8), 1122 teaches that memantine is clinically useful in the treatment of cerebrovascular disorders. In addition, Weseman et al. J Neural Transm Suppl. 1980;(16):143 teaches that a patient with arteriosclerotic Parkinson. syndrome was treated successfully with memantine. Miltner, Arzneimittelforschung/Drug Res. 1982, 32(10), 1268, reports that comatose patients suffering from post-traumatic cerebrovascular complications were successfully treated

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with memantine. The Rote Liste 1986 indicates that memantine is useful to treat cerebrovascular disorders. Marcea et al., Therapiewoche, 1988, 38, 3097-3100⁵ cites to earlier studies that show that elderly patients with degenerative or vascular cerebroorganic disorders continuously show impressive improvements when given memantine.

Although the use of memantine to treat neurodegeneration resulting from Alzheimer's disease was (and still is) unknown, the administration of memantine to patients having Alzheimer's disease also was well-known prior to the priority date of the '703 patent. For example, Fleischhacker et al., Progress in Neuro-Psychopharmacology & Biological Psychiatry, 196, 10, 87-93, describes a clinical study that administered memantine to patents who were diagnosed with senile dementia of the Alzheimer's type.

A number of other references contain similar teachings. Thus, the Marcea article describes a clinical study in which memantine was orally administered successfully to elderly patients diagnosed with moderately severe organic brain syndrome, or dementia, diagnosed according to the ICD.9 criteria. *Marcea translation* at 2. The ICD.9 criteria include dementia of the Alzheimer's type. *Fillit Declaration, May 5, 2005* at 6. Indeed, Alzheimer's disease is the most common cause of dementia; it accounts for > 65% of dementias in the elderly. Thus, one of ordinary skill would have understood that most patients diagnosed with dementia are patients with Alzheimer's disease. Ambrozi et al., *Pharmacopsychiatry*, 21:144-46 (1988), describes a clinical study involving geriatric inpatients diagnosed with dementia where one-half of the patients were successfully administered memantine and the other half were administered a placebo. Tempel,

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Based on Forest translation submitted during reexamination of the '703 patent.

The Merck Manual: http://www.merck.com/mmpe/sec16/ch213/ch213c.html?qt=dementia&alt=sh.



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Memantine Workshop March 20-21, 1987, 23-26, describes a clinical study comparing successful treatment of memantine at 10 mg per day to a more successful treatment at 20 mg per day in 60 elderly patients with an organic psychosyndrome indication. Organic brain syndrome includes dementia of the Alzheimer's type. The Rote Liste 1986 also indicates that memantine is useful to treat organic brain syndrome. Meldrum et al., Naunyn Schmiedebergs Arch Pharmacol. 1986, 332(1), 93-7, teaches that memantine is effective in the treatment of parkinsonism and that it enhances vigilance, short-term and mood in geronto-psychiatric patients. Wesemann Archeimittelforschung/Drug Res. 1982, 32(10), 1241-43 teaches that memantine improves disturbances of the extrapyramidal system and that it enhances parameters like vigilance, short-term memory, and mood in geronto-psychiatric patients. considering that Alzheimer's disease accounts for > 65% of the cases of dementia among the elderly such that most of the patients in these studies likely had Alzheimer's disease, one of ordinary skill would have understood that the above studies describe the successful administration of memantine to patients with Alzheimer's disease.

The foregoing references illustrate methods of using memantine to successfully treat cerebral ischemia and to successfully treat patients diagnosed with Alzheimer's disease, before the priority date of the '703 patent. Accordingly, it would have been obvious as of the effective filing date of the '703 patent application for one of ordinary skill in the art to utilize memantine to treat both conditions -i.e., to orally administer memantine to prevent or treat cerebral ischemia in a patient diagnosed with Alzheimer's disease at the dosage levels set forth in the claims of the '703 patent.

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http://www.nim.nih.gov/medlineplus/ency/article/001401.htm



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2. The Claims of the '703 Patent Alternatively Are Invalid As Anticipated or Obvious

As noted, Orchid's proposed generic memantine product will not infringe any claim of the '703 patent because those claims are properly construed to claim a method for preventing or treating neuronal degeneration resulting from cerebral ischemia in a patient with Alzheimer's disease. Forest Labs appears to construe certain of the claims more broadly, however, suggesting that at least claim 10 of the '703 patent "remains explicitly directed to the treatment of Alzheimer's disease." Supplement to Request for Extension. Dec. 27, 2006 at 2. While that characterization ignores the plain language of the '703 patent claims (including claim 10), in the event that one or more claims of the '703 patent are construed to merely be "directed to the treatment of Alzheimer's disease," then the claims alternatively would be invalid over prior art from Fleischhacker, Marcea, Ambrozi and Tempel.

Assuming one or more of the claims of the '703 patent are construed to merely be "directed to the treatment of Alzheimer's disease," as Forest Labs has asserted, any such claims would be obvious in light of Fleischhacker, who describes a five-week clinical study that included 20 patents with an average age of 77.5 years who were diagnosed with senile dementia of the Alzheimer's type. Fleischhacker et al., Progress in Neuro-Psychophurmacology & Biological Psychiatry. 196, 10 at 88. Ten of the patients were treated with memantine at a daily dosage of 20 to 30 mg for a period of 35 days to determine its efficacy in the treatment of dementia of the Alzheimer's type. Id. at 87 – 88. The criteria used to assess outcome were the Clinical Global Impression, which assessed attention and short term memory, and the Geriatric Rating Scale and the Sandoz Clinical Assessment Geriatric, which quantified psychopathology and behavior. Id. at 88. In the memantine group, five patients improved, three remained the same, and only

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two deteriorated, while in the placebo group, only four patients improved, three remained the same, and three deteriorated. *Id.* at 89. While the memantine and placebo groups reportedly are not statistically distinguishable, the study's authors conclude that long-term studies could probably show clear distinction between the two groups. *Id.* at 89. The authors suggest that further studies should also be done with patients having less severe forms of dementia. *Id.* The Fleischhacker article therefore teaches a method of using memantine in the treatment of dementia of the Alzheimer's type.

Although the Fleischhacker trial involved the intravenous administration of memantine, it would have been an entirely obvious design choice as of April 1989 to administer the compound orally. For example, the Marcea reference teaches the oral administration of memantine. *Marcea translation* at 2. In fact, *Rote Liste 1986* indicates that memantine was commercially available in the form of tablets for oral administration. In addition, neither the Ambrozi nor Tempel articles indicate that patients were treated with memantine other than by oral administration. Indeed, oral administration of a drug was most commonly used because of its convenience. *See Basic and Clinical Pharmacology*, 4th ed., Katzung Ed., 1989, Appleton & Lange at p. 4. In addition, one of ordinary skill in the art would have been motivated to use orally-administrated memantine to treat patients with dementia of the Alzheimer's type because oral administration was known to result in memantine concentrations remaining in the brain for much longer periods of time compared to i.v. administration. Thus, one of ordinary skill in the art would have been motivated to orally administer memantine to treat

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For example, Wesemann et al., Arzneimittelforschung. 1982;32(10):1243 describes memantine concentrations in the rat brain after both i.v. and p.o. administration. Wesemann shows that in contrast to the rapid concentration decrease in the brain after i.v. administration, a plateau is reached I hour after p.o. administration of memantine and maintained at least for the lirst 4 hours. Weseman also notes that its findings are in accordance with those seen in a human patient.



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dementia of the Alzheimer's type with an expectation of success in light of Fleischhacker.

The clinical studies and results reported on the Namenda® package insert are similar to the clinical studies described in the prior art Fleischhacker, Marcea, Ambrozi and Tempel articles—the main differences being the length of time and number of patients. The two U.S. clinical studies discussed in the package insert rely in part on measurements of Severe Impairment Battery, which measures "selected aspects of cognitive performance, including elements of attention, orientation, language, memory, visuospatial ability, construction, praxis, and social interaction." Namenda Package Insert at 1. The earliest of the studies reported on the Namenda® package insert is a 12week study done in Latvia. The Latvia study enrolled 166 patients between 60 and 80 years of age that were demented as defined by DSM-III. Forty-nine percent of the patents had a Haehinski Ischemic Scale (HIS) score of less than 5 and were deemed to possibly have Alzheimer's disease, while the remaining patients with a HIS score greater or equal to 5 were deemed to have mixed type or vascular dementia. Two criteria were used to assess outcome in the Latvia study: the Clinical Global Impression of Change (CGI-C), which is the clinician's impression of severity of illness and the Behavioral Rating Scale for Geriatric Patients (BGP), which is an observer-rated scale for the assessment of functional and behavioral disturbances of geriatric patients. See Winblad and Poritis, Int. J. Geriat. Psychiatry, 1999, 14, 135. The prior art clinical studies, like the Latvia study, include geriatric patients with dementia, where a subset of the patents possibly have Alzheimer's disease. The patients in the prior art studies were evaluated using the same or similar criteria as those used in the Latvia study. And like the Latvia study, the patents treated with memantine in the prior art studies showed improvement when evaluated by similar criteria.

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Marcea et al., Therapiewoche, 1988, 38, 3097-3100 describes a six-week clinical study involving 60 patients over the age of 55 diagnosed with moderately severe organic brain syndrome according to ICD.9 criteria, which includes dementia of the Alzheimer's type. One-half of the patients were orally administered tablets of memantine and the other half were administered a different drug. The main criteria of the study were the performance and judgment of the patients and their orientation, which were based on the following psychometric scales: the Functional Psychosis Scale B, the Plutchik Geriatric Rating Scale, and the Sandoz Clinical Assessment Geriatric Scale. The study showed a clinically relevant improvement for the patients in both groups, with the patients receiving memantine showing the most improvement. Marcea translation at 3-5.

Ambrozi et al., Pharmacopsychiatry, 1988, 21, 144 describes a clinical study involving 30 inpatients diagnosed with dementia according to DSM-III where one-half of the patients were administered memantine and the other half were administered a placebo. The purpose of the study was to determine whether memantine has the ability to influence the amnestic disorders characteristic of dementia as one category of the organic mental disorders (DSM-III). The main criteria of the study were vigilance, short-term memory, and concentration, which were determined by a flicker frequency analysis, a digit span test, and mosaic test. A psychiatric rating scale was also used as a criterion. The Ambrozi article reports significant improvements in vigilance, short-term memory, and concentration for the patients administered memantine.

Tempel, Memantine Workshop March 20-21, 1987, 23-26 describes a nine-week clinical study comparing treatment of memantine at 10 mg per day to treatment at 20 mg per day in 60 patients between the ages of 60 and 80 with an organic psychosyndrome

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indication. Organic brain syndrome includes dementia of the Alzheimer's type. The study used physical symptoms and psychometric scales as the two criteria to assess outcome. The study reports an equivalent improvement in both treatment groups for physical symptoms and for the Profile of Mood States, a self-evaluation scale. The study reports improvement for both groups when assessed according to the Sandoz Clinical Assessment Geriatric Scale, with the 20 mg group appearing to show more improvement that the 10 mg group.

Considering that Alzheimer's disease accounts for > 65% of cases of dementia in the elderly. One of ordinary skill in the art would have understood that most of the dementia patients treated in these studies had Alzheimer's disease (or dementia of the Alzheimer's type). Indeed, in the Latvia clinical study used to support Namenda's indication for treatment of dementia of the Alzheimer's type, 49% of the patients with dementia according to DSM-III in the Latvia study were deemed to have possible Alzheimer's disease. Thus, in the event that one or more claims of the '703 patent are construed to merely be "directed to the treatment of Alzheimer's disease," such claims would be invalid as obvious over at least the prior art Fleischhacker, Marcea, Ambrozi and Tempel references.

3. The Claims of the '703 Patent Are Invalid for Lack of Enablement and/or
Utility

35 U.S.C. § 112 requires that:

http://www.merek.com/mmpe/sec16/ch213/ch213e.html?qt=dementia&alt=sh.

http://www.nlm.nih.gov/medlineplus/ency/article/001401.htm

The Merck Manual:



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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The Federal Circuit has held that "the enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation." Liebel-Flarsheim Co. v. Medrad. Inc., 481 F.3d 1371, 1378 (Fed. Cir. 2007) (citations omitted). As the Federal Circuit explained "the how to use prong of section 112 incorporates as a matter of law the requirement of 35 U.S.C. § 101 that the specification disclose as a matter of fact a practical utility for the invention." In re Cortright, 165 F.3d 1353, 1356 (Fed. Cir. 1999), quoting In re Ziegler, 992 F.2d 1197, 1200 (Fed. Cir. 1993); see also In re Schoenwald, 964 F.2d 1122, 1124 (Fed. Cir. 1992) (stating that utility must be disclosed to satisfy the section 112 enablement requirement). In explaining what constitutes a sufficient showing of utility in the context of the enablement requirement, the Federal Circuit has stated that an applicant's failure to disclose how to use an invention may support a rejection under either section 112, paragraph 1 for lack of enablement, or "section 101 for lack of utility 'when there is a complete absence of data supporting the statements which set forth the desired results of the claimed invention." Cortright, 165 F.3d at 1356, quoting Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 762 (Fed. Cir. 1984).

The claims of the '703 patent require the prevention or treatment of neuronal degeneration resulting from cerebral ischemia in a patient with Alzheimer's disease or,

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alternatively, they are merely "directed to the treatment of Alzheimer's disease." In either event, "there is a complete absence of data supporting the statements which set forth the desired results of the claimed invention." Cortright, 165 F.3d at 1356. Thus, the specification of the '703 patent fails to provide any data indicating that the administration of memantine (or any adamantane derivative) effectively treats neuronal degeneration in a patient with Alzheimer's disease. Moreover, there is no data in the '703 patent that any symptoms resulting from Alzheimer's disease can be prevented or treated. The only mention of Alzheimer's disease in the specification is at the end of a list of conditions that purportedly cause cerebral ischemia. See '703 patent at col. 3, I. 10-16. The examples in the '703 patent are allegedly directed to showing efficacy in the prevention of the destruction of brain cells following an event of cerebral ischemia. See id. at col. 6, 1, 28-63. There are, however, no examples directed to or evidencing neuroprotection in a patient diagnosed with Alzheimer's disease or any animal model reasonably approximating that disease state. See id. at passim. Indeed, the '703 patent specification is devoid of any data directed to or evidencing the notion that the referenced compounds effectively treat dementia of any type. See id. at pussim.

The '703 patent specification does not contain data supporting the claimed use of memantine to prevent or treat neuronal degeneration resulting from cerebral ischemia in a patient with Alzheimer's disease or, alternatively, "the treatment of Alzheimer's disease" alone. There is no data of the sort set forth in the prior art references described above. In fact, there is no data of any type evidencing that memantine could be used to treat dementia. Moreover, Alzheimer's disease is a complex disease and "[w]hat causes degeneration of brain tissue in Alzheimer's disease is unknown." Merck Manual of Health & Aging, Section 3, chapter 27. In fact, there is no known treatment for the

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neurodegeneration associated with Alzheimer's disease. The absence of information describing to one of skill in the art that the claimed invention actually prevents or treats Alzheimer's disease (or dementia of the Alzheimer's type) therefore renders the claims of the '703 patent invalid under 35 U.S.C. § 112 and/or § 101. There is no indication that one skilled in the art would accept without question the unsupported statement that the compounds identified in the '703 patent could be used to treat Alzheimer's disease (or dementia of the Alzheimer's type). Therefore, the applicants have failed to demonstrate sufficient utility and therefore cannot establish enablement. Rasmusson v. SmithKline Beecham Corp., 413 F.3d 1318, 1323 (Fed. Cir. 2005). For these reasons, the claims of the '703 patent are invalid.

V. CONCLUSION

For the reasons discussed above, Orchid's proposed product would not infringe any valid claim of the '703 patent, either literally or under the doctrine of equivalents. Furthermore, the claims of the '703 patent are invalid in light of the prior art and for lack of enablement and/or lack of utility.

Very Truly Yours,

Dr. Billa Praveen Reddy,

Head – Pharma Research

Orchid Healthcare

A Division of Orchid Chemicals & Pharmaceuticals Ltd.

http://www.nia.nih.gov/Alzheimers/AlzheimersInformation/Treatment/

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